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NINTH CONFERENCE OF CANADIAN UNIVERSITIES

HELD AT
QUEEN'S UNIVERSITY
KINGSTON

JUNE 14TH, 15TH AND 16TH
1923

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Conference of Canadian Universities

OFFICERS

1911

Chairman.....Principal Peterson, McGill.
Secretary.....J. A. Nicholson.

1915

Chairman.....President Falconer, Toronto.
Secretary.....J. Brebner.

1916

President.....Sir William Peterson.
Vice-President.....President J. A. MacLean.
Secretary and Members of.....President Walter C. Murray.
 Executive.....President A. S. Mackenzie.
Recording Secretary.....J. A. Nicholson.

1917

President.....Sir Robert A. Falconer.
Vice-President.....Monsieur l'Abbe Emile Chartier.
Secretary-Treasurer.....President Walter C. Murray.
Additional Members of the.....President A. S. Mackenzie.
 Executive.....Dean Frank D. Adams.
Recording Secretary.....Dr. J. A. Nicholson.

1918

President.....Abbe Emile Chartier.
Vice-President.....President Walter C. Murray.
Secretary-Treasurer.....Dean Frank D. Adams.
Other Members of the Executive.....Chancellor C. C. Jones.
 Committee.....Dean James Cappon.
Recording Secretary.....Dr. J. A. Nicholson.

1919

President.....President Walter C. Murray.
Vice-President.....Dean James Cappon.
Secretary-Treasurer.....Dean F. D. Adams.
Other Members of the Executive.....Dr. Joseph Sirois.
 Council.....President A. S. Mackenzie.
Recording Secretary.....Dr. J. A. Nicholson.

1920

<i>President</i>	President A. S. Mackenzie.
<i>Vice-President</i>	President H. M. Tory.
<i>Secretary-Treasurer</i>	Dr. Joseph Sirois.
<i>Other Members of the Executive</i>	Dr. Oscar D. Skelton.
<i>Council</i>	Dr. D. C. Harvey.

1921

<i>President</i>	President H. M. Tory.
<i>Vice-President</i>	Chancellor Jones.
<i>Secretary-Treasurer</i>	Dr. Joseph Sirois.
<i>Other Members of the Executive</i>	Dean F. D. Adams
<i>Council</i>	Principal R. Bruce Taylor.

1923

<i>President</i>	President MacLean.
<i>Vice-President</i>	Dr. L. Harwood.
<i>Secretary-Treasurer</i>	President Walter C. Murray.
<i>Other Members of the Executive</i>	President H. M. Tory.
<i>Council</i>	Dr. J. Sirois.
	Sir Arthur Currie.
	Principal R. Bruce Taylor.

1924

<i>President</i>	Principal R. Bruce Taylor.
<i>Vice-President</i>	Principal Sir A. W. Currie.
<i>Secretary-Treasurer</i>	Dean G. H. Ling.
<i>Other Members of the Executive</i>	Dr. J. Nolin.
<i>Council</i>	Dr. W. H. Hattie.

The Conferences of 1911 and 1916 met in Montreal; that of 1915 in Toronto; those of 1917, 1918 and 1919 in Ottawa; that of 1920 in Laval, Que.; that of 1922 in Winnipeg; that of 1923 in Kingston.

COMMITTEES FOR 1923-24

Committee on Medical Education

Dean Rankin (Alberta).
Dr. Mewburn (Alberta).
Dr. Hattie (Dalhousie).
Dr. K. A. MacKenzie (Dalhousie).
Dean Prowse (Manitoba), *Chairman*.
Dr. Montgomery (Manitoba).
Dean Martin (McGill).
Dr. Simpson (McGill).
Dr. Parizeau (Montreal).
Dr. Lesage (Montreal).

Dean Connell (Queen's).
(Queen's).
Dean Primrose (Toronto).
Dr. J. N. McCallum (Toronto)
Dr. Hill (Western Ontario), *Secretary*.
Dr. McKibben (Western Ontario).

Committee on Legal Education

Professor Weir (Alberta).
Dean MacRae (Dalhousie).
Dr. Joseph Sirois (Laval), *Chairman*.
Dean Thorson (Manitoba).
Professor I. A. MacKay (McGill).
Professor A. Perrault (Montreal).
Chancellor Jones (New Brunswick).
Hon. N. A. Belcourt (Ottawa).
Dean Moxon (Saskatchewan).
Professor Black (Toronto).

Committee on Engineering Education

Dean Boyle (Alberta).
Professor R. S. L. Wilson (Alberta).
Dean Brock (British Columbia).
Professor of Civil Engineering (Dalhousie).
Dean Featherstonhaugh (Manitoba).
Dean Adams (McGill).
Arthur Surveyer, Esq. (Montreal).
Professor McKiel (Mt. Allison).
Professor Earle O. Turner (New Brunswick).
Professor Sexton (N.S. Technical College).
Dean Clark (Queen's).
Dean MacKenzie (Saskatchewan).
Dean Mitchell (Toronto), *Chairman*.

Committee on Graduate Work in Canada

Dean Kerr (Alberta).
President Klinck (British Columbia).
President MacKenzie (Dalhousie).
Mgr. Pelletier (Laval).
Principal Harrison (Macdonald College).
Principal MacLean (Manitoba).
Dean Adams (McGill), *Chairman*.
Chancellor Whidden (McMaster).
Canon Chartier (Montreal).
Professor Tweedie (Mt. Allison).
Father Leopold (Oka).
President Reynolds (Ontario Agricultural College).
Dr. Grisdale (Dominion Exp. Farm, Ottawa).
Dean Skelton (Queen's).

Dr. A. B. Macallum (Research Council, Ottawa).
Dean Ling (Saskatchewan).
Professor J. J. Tompkins (St. Francis-Xavier).
Dean McMurrich (Toronto).
Dean Fox (Western Ontario).

Committee on Oriental Students

Dean Brock (British Columbia).
Dean Adams (McGill).
Sir Arthur Currie (McGill), *Chairman*.
Canon Chartier (Montreal).
Sir Robert Falconer (Toronto).
Dean Fox (Western Ontario).

Committee on Royal Military College

Sir Arthur Currie (McGill), *Chairman*.
Dr. Nolin (Montreal).
Principal Taylor (Queen's).
Sir Robert Falconer (Toronto).
Dean Fox (Western Ontario).

Committee on Royal Military College Credits

Professor H. M. MacKay (McGill).
Dean Clark (Queen's).
Dean Mitchell (Toronto).

Committee on Athletics

Dean Boyle (Alberta).
Professor Howe (Manitoba).
Dr. A. S. Lamb (McGill), *Secretary*.
Dr. J. P. Lantier (Montreal).
Professor Jolliffe (Queen's), *Chairman*.
Professor M. A. Mackenzie (Toronto).
Professor G. E. Wilson ().

Committee on Publication of the Results of Scholarship and Research

President MacKenzie (Dalhousie).
Professor Eve (McGill).
Canon Chartier (Montreal).
Dean Clark (Queen's).
Dean McMurrich (Toronto).
President Murray (Western Universities).

Committee to Correspond with British and French Universities

President Tory (Alberta).
Sir Arthur Currie (McGill).
Canon Chartier (Montreal).
Principal Taylor (Queen's).
Sir Robert Falconer (Toronto), *Chairman*.

Committee on Dental Education

Dr. Bulyea (Alberta).
Dr. Ryan (Dalhousie), *Chairman*.
Dr. Thornton (McGill).
Dr. Nolin (Montreal).
Dr. Seccombe (Toronto).

Committee to Study Graduate Courses

President Tory (Alberta).
President MacKenzie (Dalhousie).
Dean Adams (McGill), *Chairman*.
Professor Ruttan (McGill).
Dean Skelton (Queen's).
Sir Robert Falconer (Toronto).
Dean McMurrich (Toronto).

Constitution of the Canadian Universities' Conference

As Amended to 1922

Article I.—Membership

The National Conference of Canadian Universities shall consist of representatives of the following colleges and universities of Canada:—

Acadia—Wolfville, N.S.
Alberta—Edmonton, Alta.
Brandon College—Brandon, Man.
British Columbia—Vancouver, B.C.
Bishop's College—Lennoxville, Que.
Dalhousie—Halifax, N.S.
King's—Windsor, N.S.
Laval—Quebec, Que.
McGill—Montreal, Que.
McMaster—Toronto, Ont.
Manitoba—Winnipeg, Man.
Montreal University—Montreal, Que.
Mt. Allison—Sackville, N.B.
New Brunswick—Fredericton, N.B.
Nova Scotia Agricultural College—Truro, N.S.
Nova Scotia Technical College—Halifax, N.S.
Ottawa—Ottawa, Ont.
Queen's—Kingston, Ont.
Royal Military College—Kingston, Ont.
St. Francis-Xavier—Antigonish, N.S.
St. Joseph's—Memramcook, N.B.
Saskatchewan—Saskatoon, Sask.
Toronto—Toronto, Ont.
 St. Michael's—Toronto, Ont.
 Trinity—Toronto, Ont.
 Victoria—Toronto, Ont.
 Ontario Agricultural College—Guelph, Ont.
Western—London, Ont.

Article II.—Representation

The representation of each college or university in the Conference shall be determined as follows:—

(a) Each Institution with over 500 students enrolled shall

have the right to have two representatives, one of whom shall be the President or his nominee; whilst each institution with less than 500 of an enrollment shall have one representative, who shall be the President or his nominee—it being understood that St. Michael's, Trinity and Victoria, which are affiliated with the University of Toronto, shall have a right to one representative each.

(b) When there are two or more faculties, each of the following:—Agriculture, Engineering, Law, Medicine and Education, shall be entitled to one representative, and for the purposes of this regulation, Osgoode Hall and Guelph Agricultural College shall be considered as the Faculties of Law and of Agriculture respectively, of the University of Toronto; the Manitoba Medical and the Manitoba Agricultural Colleges as the Faculties of Medicine and Agriculture respectively, of the University of Manitoba and the Agricultural College of Ste. Anne de la Pocatiere as the Faculty of Agriculture of Laval University, Quebec.

“For the next Conference, a maximum of six representatives shall be allowed to a single university, to be selected as that university may choose.”—*Resolution*, 1922.

Article III.—Officers

The officers of the Conference shall be:—President, Vice-President and Secretary-Treasurer, who, with two others elected by the Conference, shall constitute the Executive Committee.

Article IV.—Funds

Each university or college shall be required to pay to the Treasurer of the National Conference, every year in which the Conference meets, the sum of \$10.00 for each representative which it is entitled to appoint.

Article V.—Meetings

The National Conference shall meet annually at such time and place as the Conference may appoint. Sectional meetings may be held, and for this purpose, the universities and colleges shall be arranged in three sections:—Eastern, Central and Western; the Eastern including all the universities in the Maritime Provinces, the Central, all those in Quebec and Ontario, and the Western, all those in the Provinces west of Ontario. Each section shall determine its own representation, elect its own officers, collect its own fees, and determine the time and place of its own meetings. It shall report to the National Conference such of its decisions as may affect the universities and colleges in other sections.

Article VI.—Amendments

This Constitution can be amended at any Conference by a two-thirds vote.

Ninth Conference of Canadian Universities

The Ninth Conference of Canadian Universities was held at Queen's University, Kingston, on June 14th, 15th and 16th, 1923.
The following representatives were present:—

Acadia University	Professor F. E. Wheelock
Alberta	President H. M. Tory
	Professor A. Lehmann
	Dean R. W. Boyle
	Dean A. C. Rankin
British Columbia	President L. S. Klinck
	Dean F. M. Clement
	Professor D. Buchanan
Dalhousie	President A. Stanley Mackenzie
	Professor Murray MacNeill
	Professor W. H. Hattie
	Professor K. A. Mackenzie
Laval	Professor Jos. Sirois
Manitoba	President J. A. MacLean
	Professor Chester Martin
	Professor R. C. Wallace
	Dean S. W. Prowse
	Dr. E. W. Montgomery
McGill	Principal Sir A. W. Currie
	Dean G. A. Laing
	Dean F. D. Adams
	Professor A. B. McCallum
	Professor R. T. Ruttan
(Macdonald College)	Principal F. C. Harrison
	Professor B. T. Dickson
Montreal	Professor J. Nolin
	Canon Emile Chartier
	Rev. R. Neven
	Dr. Georges Baril
	Father Leopold
Mount Allison	Professor R. B. Liddy
Nova Scotia Technical College	Professor F. H. Sexton
Queen's	Principal R. Bruce Taylor
	Dean O. D. Skelton
	Professor W. E. McNeil
	Professor A. L. Clark
	Professor R. O. Jolliffe
	Dean J. C. Connell
Royal Military College	Professor H. J. Dawson
St. Joseph College	Rev. H. A. Vanier
Saskatchewan	Dean G. H. Ling

Toronto	President Sir R. A. Falconer Dean W. Pakenham Dean A. T. DeLury Professor J. W. Bain Dean J. P. McMurrich Dr. C. L. Starr
Victoria	Professor N. W. DeWitt
St. Michael's	Rev. Father Carr
Royal College of Dentistry	Dr. Wallace Seccombe
Western Ontario	Dean W. S. Fox Dean H. W. Hill Professor K. P. R. Neville

Morning Session—Thursday, June 14th.

President James A. MacLean, of the University of Manitoba, as President of the Conference, called the meeting to order at 9.30 a.m., and asked for a roll-call by universities.

The Secretary-Treasurer of the Conference, Dr. Walter Murray, being prevented from attendance upon the Conference, it was moved by Dean DeLury, and duly seconded, that Dean Ling of the University of Saskatchewan act as Secretary-Treasurer.—*Carried.*

The minutes of the last meeting of the Conference, held at the Hotel Fort Garry, Winnipeg, June 16th and 17th, 1922, having been printed and distributed to the members of the Conference in the interval, were taken as read.

The President of the Conference then outlined briefly the immediate objects of the present conference.

Correspondence

The following correspondence was then considered and dealt with:—

(1) An invitation to visit the Royal Military College was received from the Commandant, General Sir A. C. Macdonnell, and on the motion of President Falconer, it was agreed gratefully to accept this invitation.

(2) A letter, addressed to the Secretary by the Secretary of State for the Dominion, and dealing with the application of Frontier College for certain powers, was read. On motion of President Tory, seconded by President Falconer, the incoming Executive was requested to take into consideration all legislative actions relating to Frontier College, and to consider the advisability of memorializing the various provincial governments regarding the bearings of such actions.

(3) A letter from the Vice-President of the Shaw Correspondence Schools regarding the Canadian Extension University of Vancouver, was read and was referred to the President of the University of British Columbia for action on behalf of the Conference.

(4) A letter from Mr. Alexander Calhoun, of the Calgary Library, regarding the effect of the sales tax on purchases of library books, was read. On motion of Principal Currie, this letter was referred to the incoming Executive.

(5) A letter from President Klinck, regarding certain proposed international scholarships, was read. It was decided that no action be taken.

Reports of Committees

(1) Principal Sir A. W. Currie, chairman of the committee on the Royal Military College, asked leave for the committee to report at a later session of the Conference.

(2) President Sir R. A. Falconer, chairman of the committee to correspond with British and French universities, reported no action to date.

(3) Principal Sir A. W. Currie, chairman of the committee on Oriental students, asked leave for the committee to report at a later session.

(4) The Acting Secretary-Treasurer then presented the report of the Secretary-Treasurer.

On motion of President Tory, duly seconded, it was agreed to return cheques for dues for the years 1921-1922 which had been received from the College St. Joseph and from the University of British Columbia, such action being taken in view of the fact that dues had not been collected for these years.

On motion of Dean DeLury, duly seconded, Dean Boyle and Professor Jolliffe were appointed to audit the Treasurer's report.

On motion of President Falconer, seconded by Principal Currie, the Executive was directed to collect dues from the members of the Conference for the year 1923-1924.

Nominating Committee

The President of the Conference was authorized to appoint a committee for the nomination of officers of the conference for the coming year, such committee to report at the session of Saturday morning.

Papers

Canon Chartier presented a paper on the "Relations of Classical Colleges to the University." (*Appendix A.*)

The Acting Secretary presented a paper prepared by President W. C. Murray, on "University Co-operation in Serving Their Combined Constituencies." (*Appendix B.*)

On motion of President Tory, the paper of President Murray was referred to the universities of the prairie provinces for consideration.

By request, Presidents Tory, Klinck and MacLean, and Dean Ling spoke briefly on the problems of the western universities.

Committee on Athletics

In view of the absence of certain members of the committee on Athletics, it was agreed to reconstitute the committee, as follows: Dean DeLury, *chairman*; Professor Buchanan, Dean Boyle, Professors Jolliffe, Neville, Sirois, Wallace, Wheelock and Wilson.

Afternoon Session—Thursday, June 14th

The afternoon was devoted to the meetings of the various committees. Beginning at 4 o'clock, Principal Bruce Taylor of Queen's University conducted a party of members about the buildings and grounds of Queen's University. At 4.30, tea was served at the Principal's residence in the University's grounds.

Evening Session—Thursday, June 14th

The session of the Conference consisted of a public meeting presided over by President MacLean. Addresses were delivered by President Tory (Alberta) on "University Maintenance," and by Dean Laing (McGill) on "Sectionalism in Education."

Morning Session—Friday, June 15th

Reports of Committees

Dean Adams presented the report of the committee on "Graduate Work in Canada." (*Appendix C.*)

After a discussion by Dean Laing, Dean Skelton, Dean McMurrich, President Mackenzie, President Falconer and President Tory, the report was adopted on motion of Dean Adams, seconded by President Mackenzie.

It was moved by President Mackenzie that the nominating committee appoint a special committee to study graduate courses.

Principal Harrison of Macdonald College presented the report of the committee on "Graduate Work in Agriculture." (*Appendix D.*)

This report was adopted on motion duly made and seconded.

On motion of Principal Harrison, seconded by President Tory, it was resolved that the committee on Graduate Work in Agriculture be not continued, but that Agriculture be given representation in the committee on Graduate Work.

Paper

Dr. J. H. Grisdale then presented, in part, a discussion of "Agricultural Research."

The members of the Conference were entertained at luncheon at the Canadian Club, Frontenac Hotel, as guests of Queen's University. Sir Robert Falconer spoke on the "Educational Outlook."

Afternoon Session—Friday, June 15th

Paper

Dr. J. H. Grisdale resumed his paper on "Agricultural Research." (*Appendix E.*)

This paper was discussed by Principal Harrison, President Tory and others, and it was agreed that it be printed in the proceedings of the Conference.

Treasurer's Report

The Auditor reported favorably on the Treasurer's report. On motion of Dean Ling, the Treasurer's report was adopted.

Report of Committee

President Mackenzie presented the report of the committee on "University Co-operation in Scientific and Industrial Research." (*Appendix F.*)

He moved that the report be adopted, and that the committee be discharged.—*Carried.*

Publication of Results of Scholarship and Research

President Tory submitted a resolution passed by the Royal Society of Canada. On motion of President Tory, seconded by Dean Boyle, it was agreed that a committee be appointed to confer with the government of Canada, with the governments of the provinces, and with the Royal Society of Canada in regard to the publication of the results of Scholarship and Research. Moved by President Tory, and duly seconded, that the committee consist of six members, one to be named by each of: Principal Currie, President Falconer, Principal Tayler, Canon Chartier, President Mackenzie, and one by the Presidents of the four western universities.—*Carried.*

Papers

President Tory reported on the Extension work being done by the University of Alberta.

Dean Skelton presented a paper on "University Training for Business." (*Appendix G.*)

Committee on Dental Education

Dr. Secombe presented a report of the committee on "Dental Education." (*Appendix H.*)

This report was discussed by Principal Currie, Dr. Nolin and President Falconer. On motion of President Tory, duly seconded, it was agreed that a standing committee on Dental Education be established by the Conference, and that Dr. Secombe suggest a chairman and the other members of the committee.

Visit to Royal Military College

The Conference then adjourned in order to visit in a body the Royal Military College. Members were taken in automobiles

to the College, received by the Commandant, General Sir A. C. Macdonnell, and taken through the buildings of the College after tea had been served.

Visit to the Cataraqui Golf and Country Club

After the conclusion of the visit to the Royal Military College, the members were taken to the clubhouse of the Cataraqui Golf and Country Club, where they were the guests of Queen's University at an informal dinner. At this dinner, the toast of the Dominion of Canada was proposed by Dean Fox of the University of Western Ontario, and was responded to appropriately by Canon Chartier of the University of Montreal and Sir Robert Falconer of the University of Toronto. The toast of the Universities of Canada was proposed by President MacLean of the University of Manitoba, and ably responded to by President MacKenzie, Dalhousie University, and President Klinck of the University of British Columbia.

After the dinner, an evening session of the Conference was held, at which the subject of Dental Education was introduced by Principal Sir Arthur Currie, followed by Dr. Nolin and Presidents Tory and Falconer.

Morning Session—Saturday, June 16th

Reports of Committees

Principal Sir A. W. Currie presented the report of the committee on the Royal Military College. (*Appendix I.*)

On motion of Principal Currie, seconded by Dr. Nolin, it was agreed that a committee of three, consisting of Dean Mitchell, Toronto; Professor H. M. MacKay, McGill; and a member to be chosen by Queen's University, be appointed to look into the problems raised by the committee's report.

Principal Sir A. W. Currie reported for the committee on Oriental Students. (*Appendix J.*)

He moved, seconded by President Falconer, that the report be adopted.—*Carried.*

It was moved by Dr. Nolin, and duly seconded, that Canon Chartier be added to the committee on Oriental students.—*Carried.*

Appointment of Committees

On motion duly made and seconded, the incoming Executive Committee was authorized to name chairmen and personnel of committees where these had not been named by the Conference.

Professor Jolliffe, acting for Dean DeLury, chairman, presented the report of the committee on Athletics. (*Appendix K.*)

On motion of Professor Jolliffe, duly seconded, this report was adopted, with the further provision that the name of Dr.

Jacques P. Lantier of the University of Montreal be added to the committee.

Vote of Thanks

On the motion of Canon Chartier, a vote of thanks was unanimously adopted, to the French Ministry of Public Education, who, at the request of the French Consulate General in Montreal, and through the National Bureau of French Universities and Schools:

(a) has acknowledged, as equivalent to the corresponding degrees in France, not only the B.A., but also the different Masterships of all the Canadian universities, whether English or French;

(b) declares itself ready to accept, as having been pursued in France, the amount of study already taken here by our candidates to Masterships, so that they will be allowed to proceed to the French Mastership itself.

Suggestions for Future Programs

The President of the Conference suggested that the incoming Executive consider the advisability of holding each year, in connection with the Conference, a Conference of Teachers in one or more departments of university instruction.

Dean Packenham and Dr. Nolin suggested a survey of the degrees granted by the various universities, with a view to a more thorough understanding of the meanings of these various degrees.

Dean Laing suggested a survey of the requirements for Teachers' Professional Certificates.

Report of Nominating Committee

The President of the Conference, having previously designated President Tory, Dean DeLury and President Mackenzie as a committee to nominate officers for the coming year, the report of this committee was now presented, as follows:

- (1) For President—Principal Bruce Taylor (Queen's University)
For Vice-President—Principal Sir Arthur Currie (McGill University)
For Secretary-Treasurer—Dean Ling (University of Saskatchewan)
For other members of the Executive—Dr. Nolin (University of Montreal, Professor W. H. Hattie (Dalhousie University)
- (2) For Special Committee to Study Graduate Courses—Dean Adams, *chairman*; President Falconer, President Mackenzie, President Tory, Dr. Ruttan, Dean McMurrich, Dean Skelton.

On motion, duly made and seconded, it was agreed that the Acting Secretary cast one ballot on behalf of the Conference for the nominees of the Nominating Committee, and this ballot was duly cast, and the officers nominated were declared elected.

Invitation to Meet at Halifax

An invitation to hold the next meeting of the Conference at Dalhousie University in Halifax was favorably discussed by a number of members of the Conference, but the actual decision was referred to the incoming Executive.

Reports of Committees

Dean Clark, Queen's University, presented a report on "Engineering Education." (*Appendix L.*)

On motion of Dean Clark, seconded by Professor Bain, this report was adopted, with the further provision that Dean Boyle, Alberta, be added to the committee.

Dean Prowse presented a report of the committee on Medical Education. (*Appendix M.*)

This report was considered clause by clause. On motions duly made and seconded, the following action was agreed upon:

(a) That clause 1; clause 2, sec. 1; clause 3, part 2; clauses 4, 5, 6, be adopted.

(b) That clause 2, sec. 2, 3, 4; and clause 3, part 1, be referred to the various universities.

Vote of Thanks

On motion duly made and passed, the Secretary was directed to convey the official thanks of the Conference to Queen's University, to the Royal Military College, and to the Canadian Club of Kingston, for the hospitality extended to them in connection with the holding of the Conference.

On motion of Dr. Nolin, seconded by Canon Chartier, a vote of thanks was extended to the retiring President.

Invitations to Future Meetings

On motion of Professor Jolliffe, duly seconded, it was agreed that hereafter all members of the staff of instruction and of the governing boards of a university at which the Conference was held, be invited to attend sessions of the Conference.

The Conference then adjourned.

Minutes of First Meeting

COMMITTEE ON MEDICAL EDUCATION

UNIVERSITIES' CONFERENCE

June 15th and 16th, 1923

Note.—Four sessions of the delegates from the Canadian university Medical faculties to the committee on Medical Education were held—one session at Montreal, June 14, 1923, with informal discussion only, and without formal organization. Only the three formal sessions are here minuted.

The * (starred) recommendations, shown in items 13, 14 and 17 of the minutes, constituted part of the report of the committee on Medical Education, made June 16th, 1923, to the Universities Conference. These items were referred by the Conference to the universities and Medical faculties concerned, with the request that the different Medical faculties consider and report their views thereon to the Secretary of the committee on Medical Education (H. W. Hill, Dean: Faculty of Public Health, University of Western Ontario, London, Canada) not later than February, 1924, in order that the views of the universities and their faculties may be collated for report at the next Universities Conference, June, 1924.

Afternoon Session—Friday, June 15th

(1) Present: Representing Alberta—Dean Rankin; Dalhousie—Dr. W. H. Hattie, Dr. K. A. MacKenzie; Manitoba—Dean Prowse, *chairman*, Registrar Montgomery; McGill—Professor A. B. Macallum; Queen's—Dean Connell; Toronto—Dr. C. L. Starr; Western Ontario—Dr. H. W. Hill, *secretary*.

(2) Dr. Prowse presented informally the proposed program of subjects for discussion, and reviewed briefly the informal discussion which has taken place at Montreal. The proposed program follows:

- (a) Clinical Instruction for Students from Tropical Countries.....Dr. H. W. Hattie
- (b) Uniformity in Standards: How Far Admissable or Possible?....Dr. J. C. Connell or Dr. James Miller
- (c) Teaching in the Interne Year....Dr. G. E. Armstrong
- (d) Relations between the Medical Schools and the Provincial Councils and the Medical Council of Canada. Conflict of dates of examinations, convocations, etc.....Dr. J. C. Connell
or Dr. James Miller
- (e) Colleague Examining.....Dr. J. C. Connell
- (f) Control of Teaching in the Subjects of Physics, Chemistry and Biology.....Dr. G. E. Armstrong

- (g) "Foreign Invasion".....Dr. J. C. Connell
or Dr. James Miller
- (h) Initiation of Freshmen Dr. J. C. Connell
or Dr. James Miller
- (i) The University Medical Officer and Health Insurance of Students.....Dr. J. C. Connell
or Dr. James Miller
- (j) Students' Employment.....Dr. J. C. Connell
or Dr. James Miller
- (k) The Teaching of Clinical Surgery in the Undergraduate's Last Year.....Dr. C. L. Starr
- (3) Informal discussion of organisation; recognition of Dean Prowse as chairman by appointment of the Universities Conference.

(4) Dr. Hill elected as secretary for one year.

(5) Moved, Dr. Macallum; seconded, Dr. Connell, and carried: That the members of this committee be given by the Conference the status of members of the Conference. (This request was granted by the Conference, June 16, 1923.)

(6) Moved, Dr. Hattie; seconded, Dr. MacKenzie, and lost on tie vote: Because of the impossibility of providing adequate clinical instruction to students who purpose to engage in medical practice in tropical countries, this committee is of the opinion that it is inadvisable to encourage such students to proceed to the years in which clinical instruction is given in Canadian universities, but would welcome an opportunity of co-operation between Canadian universities and a properly organized school for clinical instruction. should such a school be established in the British West Indies. This committee is of the opinion that each Canadian university in which a course in Medicine is given, should accept its proportionate number of such students in the earlier (i.e., pre-clinical) years, and should, if desired, assist in the organisation of and teaching in the suggested clinical school for the West Indies.

For the purpose of advancing this proposal, this committee recommends that a committee be appointed to ascertain what can be done to establish a satisfactory clinical school in the West Indies, and what assistance might be offered by Canadian universities.

(7) Adjourned to meet after dinner.

Evening Session—Friday, June 15th

(8) Present: Same as afternoon session.

(9) Dr. Macallum presented, verbally, notes concerning program items 3 and 6, of which the following are the secretary's entries:

In 1922 McGill proposed, and during the winter 1922-23 outlined a medical course involving two pre-Medical years fol-

lowing junior matriculation, to be followed by five years of medical work, of which the first was to be devoted to Anatomy, Physiology and Biochemistry, the fifth to a hospital year plus clinical instruction and didactic lectures.

But in April, 1923, on reconsideration, it was decided that this plan was not practical—that the Physics, Chemistry and Biology, if thus taught wholly in pre-Medical years, would not be satisfactorily taught from a medical standpoint. Six weeks ago, McGill decided for the McGill medical course that:

(a) Entrance should be by senior matriculation; or following one year in Arts or by the Ontario junior matriculation, plus honors in four subjects.

(b) That there should be six years of study, leading to the M.D. degree, following such entrance, of which the first year should include Physics, Chemistry and Biology; the second year, Anatomy and Physiology; the fourth year Biochemistry and Pathological Chemistry; while the sixth year should be a hospital year, i.e., a full calendar year of systematic, supervised clinical clerkship (1,050 hours) of which about one-third (350 hours) should consist of definite didactic and clinical instruction by members of the Medical staff.

(c) The details of this course will appear in the forthcoming McGill Medical faculty announcement.

D₁. Connell—Matriculation should be uniform in all university courses.

Dr. Starr—Toronto University has a similar hospital year now, the clinical and didactic instruction totalling 150 hours.

Dr. Hattie—At Dalhousie, the medical course is as follows:

First Year: Physics, Chemistry, Biology, taught by Arts departments, the teachers sitting on the Medical faculty and modifying their courses to suit medical needs. Second Year: Anatomy, Embryology, Histology, partly by Arts. Sixth Year: Didactic in Eye and Ear, Ethics, Psychiatry from 9 - 1; hospital work, 2.30 - 5 p.m. (30 weeks).

Dr. Macallum—Should the British Medical Council system be adopted, i.e., Physics, Chemistry, Biology before registration; and the same as applied to Medicine, during the first year following registration?

(10) Adjourned to meet next morning.

Morning Session—Saturday, June 16th

(11) Present: Same as Session 1, except Dr. Macallum.

(12) Dr. Prowse sent word that he would be delayed: Dr. Connell elected temporary chairman. Dr. Prowse came in later.

*(13) Moved by Dr. Starr; seconded, Dr. MacKenzie, and carried: In the opinion of this committee, it is desirable (1) that the period of study required of students in Medicine should be limited to six years after entrance; (2) that as soon as practicable medical students shall be under the control of the Medical faculty during the whole six year period; (3) that the teaching in the subjects of Chemistry, Physics and Biology be carried on by the Arts faculty under the control of the Medical faculty, and such Arts teachers be included in the Medical faculty; (4) that the final year be a clinical year, devoted almost entirely to hospital work, with the students acting as junior assistants to the hospital internes; that there be included in this year certain instruction in clinics and lectures; and that as early as feasible this year be a calendar year instead of an academic year.

Note.—The Conference referred this resolution to the universities having Medical faculties.

*(14) Moved by Dr. Hattie; seconded, Dr. MacKenzie, and carried: It is the opinion of this committee that, because of the impossibility of providing adequate clinical instruction to students who purpose to engage in medical practice in tropical countries, it is inadvisable to encourage such students to proceed to the years in which clinical instruction is given in Canadian universities; and the committee therefore recommends that a special committee be appointed to ascertain what can be done to establish a satisfactory clinical school in the British West Indies and the ways in which Canadian universities might contribute towards the establishment and conduct of such a school.

Note.—The Conference referred the first five lines of this resolution to the universities having medical faculties; and appointed a special committee, in accordance with the recommendation in the remainder of the resolution.

(15) The committee then agreed that it would meet with the Conference next year, or if the Conference did not meet, then at the call of the chairman.

Note.—The Conference later voted to meet at Halifax, exact time, etc., to be decided by the Conference executive committee.

(16) Dr. Connell read for Dr. James Miller, of Queen's, a paper on "Colleague Examining." The committee recommended to the Conference its publication.

Note.—The Conference approved the publication of this paper in the report of the Conference.

*(17) Moved, Dr. Prowse; seconded, Dr. Starr, and carried: That this committee is of the opinion that the principle of colleague examiners, selected from other universities, should be followed so far as local conditions permit.

Note.—The Conference referred this resolution to the universities.

(18) Dr. Connell discussed informally the status of the Medical Council of Canada and its examination and license, urging that it should receive consideration and standing in Canada similar to that of the M.R.C.P., etc., in England.

Adjourned.

Submitted, 1923, by the Secretary, H. W. Hill.

Approved, 1923, by the Chairman.

Chairman's Address—Dean S. W. Prowse, Medical Faculty, University of Manitoba, Bannatyne St., Winnipeg, Man.

Secretary's Address—Dean H. W. Hill, Faculty of Public Health, University of Western Ontario, London, Ontario, Canada.

Note.—The personnel of the committee on Medical Education remains as before, i.e., chairman (Dr. Prowse) appointed by the Conference, and two delegates for each Canadian university which possesses a Medical faculty. The secretary (Dr. Hill) was elected by the committee.

NINTH CONFERENCE OF CANADIAN UNIVERSITIES

RECEIPTS AND EXPENDITURES TO DECEMBER 31, 1923

Receipts to June 16th, 1923

1923			
Jan.	5	Balance from retiring Treasurer (<i>less</i> exchange 30c)....	\$216.35
		Cash from exchange of \$1,000 War Loan 5½ per cent., 1923, for \$500 War Loan 5½ per cent., 1934.....	550.10
May	1	Interest, War Bond.....	13.75
			<hr/>
			\$780.20

Expenditures to June 16th, 1923

1923			
Feb.		University of Alberta, for printing.....	\$ 34.17
Feb.	6	University of Saskatchewan, for telegrams.....	8.14
Apl.	18	Turner's Weekly, reports.....	325.75
May	25	University of Saskatchewan, telegrams, postage.....	10.44
May	25	Turner's Weekly, printing programs.....	14.11
		Cash on Hand.....	387.59
			<hr/>
			\$780.20

Audited and certified by R. W. Boyle and R. O. Jolliffe.

Receipts, June 16th to December 31st, 1923

1923			
June	16	Balance on Hand.....	\$387.59
		Dues, Royal Military College.....	10.00
June	30	Interest on bank deposit.....	2.50
July	10	Dues, College of St. Joseph.....	10.00
Oct.	28	Dues, University of Saskatchewan.....	50.00
		Dues, University of British Columbia.....	40.00
		Dues, University of Ottawa.....	10.00
Nov.	1	Interest on Victory Bond.....	13.75
Nov.	2	Dues, University of Toronto.....	50.00
Nov.	3	Dues, McGill University.....	60.00
Nov.	5	Dues, University of Manitoba.....	50.00
Nov.	5	Dues, University of Montreal.....	50.00
Nov.	5	Dues, Victoria University.....	10.00
Nov.	5	Dues, St. Michael's College.....	10.00
Nov.	5	Dues, Queen's University.....	40.00
Nov.	5	Dues, St. Francis Xavier College.....	10.00
Nov.	8	Dues, Acadia University.....	10.00
Nov.	13	Dues, Trinity University.....	10.00
Nov.	29	Dues, Dalhousie University.....	40.00
Nov.	29	Dues, University of Western Ontario.....	30.00
Nov.	30	Dues, Nova Scotia Technical College.....	10.00
Nov.	30	Interest on bank deposit.....	3.72
Dec.	7	Dues, Ontario Agricultural College.....	10.00
Dec.	21	Dues, McMaster University.....	10.00
			<hr/>
			\$927.56

Expenditures, June 16th to December 31st, 1923

1923			
Nov.		Exchange on sundry cheques.....	\$ 1.75

APPENDICES

A. The Classical Colleges of Quebec

Canon Chartier

In the French universities, the old Faculty of Arts, which formed part of superior education, has disappeared. It has been superseded, in Montreal as in France, by the three faculties of Philosophy, of Letters, and of Pure Science.

The faculty of Arts of the English, Anglo-Canadian and American universities, leading to a B.A. degree has, however, its equivalent in our university, where it comes within the province of secondary education. It consists of the several affiliated colleges.¹

Institutions of this nature have always been considered so necessary by Canadians of French origin that they have multiplied them throughout their history. Quebec College, founded in 1635 by the Jesuits, was continued by the Quebec Seminary in 1668. From 1760 to 1840, eight others appeared: Montreal, 1767²; Nicolet, 1803; Saint-Hyacinth, 1811; Saint-Boniface, 1818; Sainte-Therese and Chambly, 1825; Sainte-Anne de la Pocatiere, 1827; l'Assomption, 1862. From 1840 to 1867, ten more colleges were launched: Joliette, 1846; Saint-Laurent, 1847; Bytown or Ottawa, 1848; Bourget (in Rigaud) and Saint-Mary's in Montreal, 1850; Levis and Sainte-Marie de Monnoir, 1853; Memramcook, 1854; Three Rivers, 1860; and Rimouski, 1862. Ten others were opened between 1867 and 1914: Chicoutimi, 1873; Sherbrooke, 1875; Pointe-de-l'Eglise, 1890; Valleyfield, 1893; Caraquet, 1899; Notre-Dame Ladies' College in Montreal, 1908; Saint-John's and Saint Alexander's-by-the-Gatineau or Ironside, 1911; Nominigue-Mont Laurier and North Cobalt, 1912; Sudbury and Edmonton, 1913. Even the war, from 1914 to 1918, did not prevent the foundation of two more colleges: Saskatoon and Gravelbourg. Barring two of these institutions, which have since disappeared (Chambly and

¹ There is, however, a double difference. The English universities only count as forming part of their faculty of Arts, the last four years of the Arts or college course; we include in our faculty of Arts the first four years of the course (about equal to their high school). In their faculty of Arts, the English only confer the B.A. degree; in theirs, the French grant the three Bachelors' degrees—B.L., B.Sc., and B.A.—and to obtain any of these three, eight complete years of classical studies are always required.

² Since the Quebec Seminary dates back to 1668 and that of Montreal to 1767, one is astonished to read in the Canada Year Book (1921, Chap. 6), this assertion: "The oldest university in Canada, viz., King's College, Windsor, Nova Scotia, dates from 1789, and claims to be also the oldest university in His Majesty's Overseas Dominions." King's College, despite its university title, has never been anything else but an institution for secondary education.

Sainte-Marie de Monnoir), there remain thirty-one colleges established and supported by the French element.

Of these thirty-one, the province of Quebec counts within its own boundaries twenty-one. Nine are affiliated to Laval University: Quebec, 1863; Nicolet, 1863; Sainte-Anne, 1863; Levis, 1879; Three Rivers, 1863; Chicoutimi, 1877; Rimouski, 1872; Mont Laurier, 1915; Saint Alexander-by-the-Gatineau, 1915. Twelve, affiliated to Laval until 1922, have been attached since that date to the new Montreal University: Montreal, 1887; Saint Hyacinth, 1880; Sainte-Therese, 1863; L'Assomption, 1880; Joliette, 1880; Saint Laurent, 1880; Saint Mary's in Montreal, 1889; Bourget, in Rigaud, 1884; Sherbrooke, 1878; Valleyfield, 1896; Notre Dame Ladies' College, 1909; Saint John's, 1912.

The idea which inspired the establishment of these institutions has been expressed by no one better than by His Lordship the Bishop of Saint Hyacinth. In writing to the faithful of his diocese on May 7th, 1911, upon the occasion of the hundredth anniversary of the foundation of their college, Bishop Bernard embodied the essential characteristics of all similar establishments.

All are the issue of religious inspiration, all depend on ecclesiastical authority, all are under the direction of the diocesan clergy or of a religious community, all have the boarding-school regime and a double object—primarily to fit recruits for the clergy and, subsidiarily, to train members for the liberal and professional careers.

Most of our colleges are the development of a Latin school, organized in his presbytery by some country parish-priest. The priest seems to have guessed that his parish would some day become an episcopal see, and his previsions have often come true. These rectors had thus sown the seed of the seminary which the Council of Trent imposes upon all bishoprics. By force of events, as the rectories were the sole institutions of secondary education, parents sent them their sons without distinction as to which career the latter were destined. Thus, the rectories became college-seminaries, where the future laity received its education in common with the future clergymen.

This community of college life explains the intimate union which has existed at all times, in Quebec, between the lay and ecclesiastical elements. It is this community of college life which has maintained the influence on the multitude of all the cultured men, and which has produced the pacific disposition, the broad-mindedness, and the industrious spirit which are credited to the province of Quebec, even by observers most estranged to its creed and its language.

Thus, to train both a religious and civil elite was the main intention of the founders.

With such an ambition, it is easy to conceive to what educa-

tional system their pupils would be submitted. The object of secondary education is the general culture of the intellect and of the will. Between the so-called utilitarian spirit and idealism, their choice was soon decided. They bound themselves to the latter, and applied here the system followed in France in the 17th century, especially by the Jesuits. Quebec Seminary had first traced the way.³

Under the pressure of circumstances, it is true they later grafted upon this primitive trunk boughs which were more or less vigorous. Here a school for the deaf and dumb was opened; here a school of agriculture or of commerce. There, were given lessons in stenography, and the teaching of law was even contemplated.

But it was soon understood that to mingle and confuse classical teaching and professional training under the pretext of better attaining the two objects of education was unwise. This is how, in 1911, we summed up this lesson taught by experience: "Because they are not mistaken, who demand a practical education, capable of fulfilling the new requirements of a constantly varying economic situation, it does not ensue that the colleges must forego their classical tradition. Institutions preparatory to finance and industry are essential to the welfare of the community; but others which rear an unselfish taste for truth and the beautiful are also necessary. In a curriculum for classical training, all excessive concessions to the so-called practical studies turn to the detriment of the former and the greater harm of the others."⁴

The character of most of our colleges at present is distinctly idealistic. A few, such as Sherbrooke, have annexed a course in industry. Others, Saint Ann's, for instance, include an agricultural school. Nearly half of them begin with a three or four years' commercial course. In all of them, however, midway and at the summit of the studies is the old program based on Greek, Latin, French, English and scholastic philosophy. In this, none has changed anything whatsoever in the ideal of the initiators.

To render the organization of our classical course more easy to understand, we compare it to the organization of the English and American universities.⁵ We do not wish to pronounce

³ Mgr Amedee Gosselin has furnished a complete sketch of the system in *L'Instruction Publique au Canada*, under the French regime (1635-1760), P. II., Chap. 2, 6, 7 and 8.

⁴ The accuracy of this statement is well outlined by Brunetiere (*Questions Actuelles*, last article); Father Burnichon (*Etudes*, March 20th, 1909); Abbe Lahargou (*Enseignement chretien*, April, 1909); Mgr. Paquet (*L'Eglise et l'education*, Chap. XI.).

⁵ The equivalence concerns the French classical institutions (8 years) and the English high schools (4 years) with the English college or Arts course (4 years) of Quebec. The New York count, unit or credit, has been taken as a common basis; it covers one hour's teaching per day during forty weeks of five days.

here on the relative value of the training received in our colleges and that received elsewhere. We will simply note the distinguishing characteristic which we mean our secondary teaching to maintain. To the training obtained by science and mathematics, which specialize in the early years, we prefer the more disinterested and more general culture by means of history, literature and scholastic philosophy.

The studies preparatory to the B.A. degree comprise a course of eight school years, following seven years of primary schooling. The academic year lasts approximately from the 1st of September to the 20th of June. The distribution of the subjects and the time allotted to each is indicated on the following schedules:

FIRST FOUR YEARS—(ENGLISH HIGH SCHOOL)								
Subjects	1st Year		2nd Year		3rd Year		4th Year	
	Eng.	Fren.	Eng.	Fren.	Eng.	Fren.	Eng.	Fren.
Mother Tongue.....	5¼	5	4¾	5	1½	3¾	1¾	2½
Second Language.....	2½	3	3	3	3	3	2¾	3
Literature.....	..	..	..	..	2	..	2½	3¾
Latin.....	3	7½	4¼	8¾	4	5	5¼	5
Greek.....	..	..	..	..	3¾	5	4	2½
History.....	2½	3¾	2¼	2½	1½	2½	½	2½
Geography.....	1½	3¾	1	3¾	..	3¾	..	..
Mathematics.....	4¼	2½	5	2½	6½	2½	4½	2
Chemistry.....	..	..	..	..	1	..	2	..
Penmanship.....	1	..	..	..	..	..	..	..
Elocution.....	1¼	..	1	..	..	..	½	..
Drawing.....	2	..	2	..	..	..	..	..
Gymnastics.....	½	..	½	..	½	..	..	..
Totals.....	23¾	25½	23¾	25½	23¾	25½	23¾	21¼

LAST FOUR YEARS—(ENGLISH ARTS OR COLLEGE COURSE)								
Subjects	5th Year		6th Year		7th Year		8th Year	
	Eng.	Fren.	Eng.	Fren.	Eng.	Fren.	Eng.	Fren.
Mother Tongue.....	1	2½	1	2½	2	..	2	..
Second Language.....	4	3	4	3	..	..	..	..
Literature.....	2	5	3	5	4	..	4	..
Latin.....	4	3¾	4	3¾	..	..	..	..
Greek.....	4	2½	..	2½	..	..	..	..
History.....	1	2½	..	2½	..	½	4	½
Mathematics.....	4	2	..	2½	..	7	..	..
Philosophy.....	..	..	..	..	4	9½	4	9½
Physics.....	..	..	4	..	..	..	..	5
Chemistry and Science.....	..	..	..	..	7	3	..	5
Totals.....	20	21¼	16	21¾	17	20	14	20

SUMMARY—(DIVIDED INTO 4 AND 4 YEARS)

Literary Training	Years 1—4		Years 5—8		Years 1—8	
	Eng.	Fren.	Eng.	Fren.	Eng.	Fren.
Mother Tongue.....	13¼	16¼	6	5	19¼	21¼
Second Language.....	11¼	12	8	6	19¼	18
Literature.....	4½	3¾	13	10	17½	13¾
Latin.....	16½	26¼	8	7½	24½	33¾
Greek.....	7¾	7½	4	5	11¾	12½
History.....	6¾	11¼	5	6	11¾	17¼
Geography.....	2½	11¼	...	...	2½	11¼
Totals.....	62½	88¼	44	39½	106½	127¾
Scientific Training						
Mathematics.....	20¼	9½	4	11½	24¼	21
Chemistry.....	3	...	7	4	10	4
Physics.....	...	...	4	5	4	5
Science (Natural).....	...	...	...	4	...	4
Philosophy.....	...	...	8	19	8	19
Totals.....	23¼	9½	23	43½	46¼	53

GENERAL SUMMARY

	Years 1—4		Years 5—8		Years 1—8	
	Eng.	Fren.	Eng.	Fren.	Eng.	Fren.
Literary.....	62½	88¼	44	39½	106½	127¾
Scientific.....	23¼	9½	23	43½	46¼	53
Special Subjects.....	9¼	...	...	...	9¼	...
Total sum.....	95	97¾	67	83	162	180¾

This comparison leads to certain rather unexpected conclusions:

(a) In the English as in the French educational institutions, the program of work for the first six years includes, on the literary side, the teaching of Greek, Latin, French, English, General History and History of Literature, Literary Composition and Geography; on the science side, it includes the study of Mathematics in both and, in addition, that of Chemistry in the English course. Neither of the two programs includes Philosophy or Natural Science (such as Botany), before the seventh year;

(b) In the English institutions, the science teaching during the first six years is almost the double of what it is during the last two years. Inversely, in the French colleges, it is three times greater during the last two than during the first six years;

(c) On the other hand, the teaching of literary subjects in the French colleges is five times greater during the first six years than during the last two years; while in the English institutions literary subjects during the last two years take up three times what they do during the first six years;

(d) In short, during the first six years, the French colleges attach more importance to their literary studies, the English to their science; during the two last years, the English institutions pay more attention to their literary studies, the French to their science.

Or, to put it in other words, it is easily noticeable that the French and English systems differ radically in this, viz., that the latter have a fairly even mixture of their scientific and literary subjects throughout, with perhaps more science than literature at first, and then vice-versa; while the French system consists in taking, chiefly, literary subjects first, and then practically all the science in the final years. Which system is superior is not for us to say, but the fact is that each results in a general mental training of very high value, and in the total, the sum of credits to each of the subjects is remarkably similar.

Our system has received a threefold sanction which quite suffices. Its efficiency as to moral training is evidenced by a recent fact. The Roman authorities who constituted the Canon Law in 1918 did nothing else, in the chapter which concerns the ecclesiastical seminaries (Canons 1352-1383-cf. Montreal University Year Book, 1923-23, pp. 8-17), but condense into prescriptions the constant practice followed in our seminaries and colleges since the origin of the colony.

As to the pedagogical value of the system, it has been established no less explicitly by the highest school authority in Great Britain. At the recent congress of the British Empire, the Honorable Mr. Fisher, Minister of Education in England, delivered a lecture on the new system of instruction which he has fathered. Coming to the question of secondary teaching, he pointed out what he considered to be the two outstanding defects of the system heretofore adhered to in England. The pupils, on leaving high school, pass to the university, into strange hands, at the age when they most need school discipline, and see their lessons replaced by lectures which are beyond them. Then, whereas the high school principally teaches grammar and science, the university college course is based on history and literature. So that children are taught the subjects which require the most reasoning at the age when their faculties are least fitted for it, and labor on subjects which imply sensitiveness and imagination at the very hour when their judgment is in full expansion. The cart has been put before the horse.

"For the past four years," continued the Minister, "we have been striving to change this absurd system. We are encouraging the educators to return to the old classical instruction. Already, eighteen colleges have been opened, where the same masters teach the same pupils the same subjects during eight years. Grammar, history and literature form the first four years' subjects; the last

four are employed, as in former times, by the study of rhetoric and science. To spread this mode of instruction, which we had undeservedly forsaken, the government has voted three million pounds. Before long, Great Britain will be completely covered with classical colleges copied from the old model."

It is with a certain pride that the two delegates of Montreal University, when they afterwards approached the Honorable Minister in private, made the following declaration:

"The province of Quebec discovered from the first the system, to which you have returned after several centuries of lamentable experience. In this, she had no merit; she only applied at home the old program which the Jesuit Fathers had enforced in their college of la Fleche, in Anjou. Results have always been satisfactory, and our province has no intention of making any changes. Only, to complete this program, we have developed its scientific section and extended to women the benefits of the system. Notre-Dame Ladies' College in Montreal is a school for secondary teaching absolutely similar to the twenty colleges for boys which cover the surface of our provincial territory."

Finally, on March 8th, 1922, the Provincial Government of Quebec recognized the social and national value of the system by enacting a law authorizing the provincial secretary to remit to each of our colleges \$10,000 a year, both as a token of gratitude for services rendered and in view of contemplated improvements. The preambles and a few clauses of this act (12, George V., Ch. 5), are really worth being quoted:

"Whereas for over two centuries the classical colleges have rendered undeniable services to the population of Canada; whereas, heretofore, they have borne almost alone the costs of secondary instruction, which has benefited thousands of citizens of this province and of the entire continent; whereas, since their foundation, they have annually given free tuition to numerous young persons; whereas, it is in the interest of the province that secondary instruction should continue to progress. . . .

"3. The Lieutenant-Governor-in-Council may allot annually for the purposes of this act a sum, not exceeding two hundred and thirty thousand dollars, payable out of the consolidated revenue fund.

"4. At the end of each school year, a subsidy of ten thousand dollars may be granted out of the sum mentioned in section 3 of this act, to each of the duly recognized classical colleges, as defined in section 2 of the said act.

"6. The annual subsidy mentioned in section 4 of this act shall be devoted to the equipment or creation of *cabinets*, and laboratories of science, to the purchase of books, and, in general, to the perfecting of secondary instruction.

"7. Every subsidized classical college shall, in so far as

possible, send every year to the superior normal schools of Quebec, Montreal, or elsewhere, pupils or professors destined for the teaching of secondary instruction, in order that they may qualify for the diplomas therein awarded.

"8. A classical college may apply a part of the subsidy received to the payment of the free tuition which it has given poor pupils during the scholastic year."

Invariable as the system of instruction itself, has been the masters' devotedness to their pupils and the parents' confidence in the masters. As time rolls on, the throngs of students become more numerous. The cost of board is slightly higher. But this increase is so little in accordance with a decrease in sacrifice that the parents see at a glance it is a necessity imposed by circumstances.

Statistics give quite an exact idea of the actual situation:

LAVAL UNIVERSITY (QUEBEC) REGION

	<i>Ecclesiastical Staff</i>	<i>Number of Pupils</i>	<i>Tuition</i>	
			<i>Boarders</i>	<i>Non-Residents</i>
1. *Quebec.....	53	730	\$121	\$30
2. Nicolet.....	48	360	220	40
3. Saint Ann's.....	60	600	225	...
4. Levis.....	58	750	225	40
5. Three Rivers.....	38	468	200	50
6. *Chicoutimi.....	36	319	125	...
7. Rimouski.....	35	300	225	40
8. Mont Laurier.....	18	150	200	60
9. St. Alexander's-by-the-Gatineau (Ironsides)...	16	165	121	...

MONTREAL UNIVERSITY REGION

1. Montreal.....	35	540	200	75
2. Saint Hyacinth.....	35	446	200	60
3. Sainte-Therese.....	28	390	215	75
4. L'Assomption.....	34	375	220	70
5. Joliette.....	41	400	225	75
6. Saint-Laurent.....	44	457	230	50
7. St. Mary's (Jesuits)....	40	675	300	80
8. Bourget (Rigaud).....	39	330	230	80
9. Sherbrooke.....	43	478	205	60
10. Valleyfield.....	33	280	225	50
11. Notre-Dame Ladies' College.....	36	550	500	100
12. Saint Johns.....	34	280	235	60
	806	9,043	\$231.63	\$62.65
			(Average fees from recent figures.)	

* The asterisk indicates the colleges from whom we have no recent figures. Those given date back to 1913. We have ignored them in figuring the average tuition.

Here, then, are over 800 professors and supervisors who are devoted, during ten entire months of the year, to the education of nearly ten thousand pupils. The average tuition of \$230, paid by the boarders, includes both board and instruction! This would seem a dream, did we not long since know to what heights of self-denial can attain souls consecrated to God.

In some of our colleges, the statutes guarantee the professors, besides bed and board, an annual salary which gradually grows to the amount of \$300, after twenty-five or thirty years' probation. But most of our masters are still at the emolument of \$80 or \$100. One of our institutions (St. Hyacinth) has even kept to the old method: it cancels all remuneration, grants clothing and food (*alimenta et quibus tegamur*), with an allowance of \$20 for the holidays. Moreover, a special vote must each year authorize this allowance! Better still, some colleges know neither stipend nor allowance, as they are kept by religious communities.

That some waive all salary and others benevolently accept ridiculous emoluments, partly explains the financial prosperity of nearly all these establishments. A further explanation is the clever and economical appropriation of the meagre tuition revenue. To these two causes, we must add the sacrifices of a few laymen and those of the clergy. During life or at death, they bequeath to the colleges, to be apportioned among the students, the surplus of their personal property.

As to the subsidies granted each year by the Council of Public Instruction, they represent a mere reimbursement, a real restitution. The so-called Fund of Superior Education, from which they are drawn, was derived from the property of the religious congregations which disappeared with, or shortly after, the English conquest.⁷ The Jesuits have withdrawn but a trifling part of what, by rights, belonged to them; the interest on the balance is annually distributed by the Council amongst the institutions *both Protestant and Catholic*. Until 1922, each of our colleges received an average of \$786.68 per annum.

With such slight resources, with such prodigal abnegation, what intellectual work have they accomplished?

Some of them have related their history. Those whom these questions interest have perused, as they appeared, Mgr. Amedee Gosselin's and Abbe Roy's publications on the Quebec Seminary; Mgr. Richard's on that of Three Rivers, Mgr. Douville's on that of Nicolet; Mgr. Choquette's on that of St. Hyacinth; Abbe Dugas' on that of Joliette; Dr. Dionne's on that of Ste.-Anne; Mr. Oliver Maurault's on that of Montreal. They will have understood how much reason we had to write in 1911: "Our masters had foreseen

⁷ The Honourable P. J. O. Chauveau relates the origin of this fund in *L'Instruction Publique in Canada*. The colleges of Quebec and Montreal have always waived their portion.

that the co-education of the two groups of our national elite assured their alliance when would come the hours of struggle for the preservation of the ancestral legacy. The historian and the psychologist note with interest that love of the Church which then fired nearly all our political men and the fever of patriotism which animated nearly the whole ecclesiastical body. It is not the least explanation of our past successes." Our institutions have trained most of the outstanding characters which have figured in the scenes of our national stage. Is this not glory sufficient?

Such far-reaching results suppose a solid preparation. Of this we have already judged by the very nature of the instruction imparted. It pleases us to submit it to further judgment on the merits of the rigorous discipline and atmosphere of labor which shrouds each of these colleges. Both these characteristics are prominent in the following college boys' horarium:

ORDINARY SCHOOLDAYS	HOLIDAYS	SUNDAYS AND FEASTS
5.15—Rise. 5.40—Morning prayers and meditation. 6.00—Study. 6.45—Mass and daily communion. 7.30—Breakfast and recreation. 8.00—Class. 10.00—Recreation. 10.30—Study. 11.45—Self-examination. 12.00—Dinner. 12.30—Recreation. 1.30—Study. 2.00—Class. 4.00—Recreation. 4.30—Study (Weekly confession on Saturdays). 6.00—Chaplet and spiritual reading. 6.30—Supper. 7.00—Short visit to the Blessed Sacrament and recreation. 8.00—Evening prayers. 8.15—Study or confession. 9.00—Bedtime.	<p style="text-align: center;"><i>(Two half-holidays a week)</i></p> 5.15— to 10.00—As on ordinary days. 10.00—Recreation. 11.45—Self-examination. 12.00—Dinner. 12.30—Recreation (with free study between 2 and 3). 5.00—Study. 6.00— to 8.15—As on ordinary days. 8.15—Bedtime.	5.15—Rise. 6.00—Morning prayers and meditation. 6.15—Study or Sodality meeting. 7.00—Low mass and communion. 7.30—Breakfast and recreation. 8.30—High Mass and sermon. 9.45—Recreation. 10.30—Study and religious instruction. 11.45—Self-examination. 12.00—Dinner. 12.30—Recreation. 1.30—Study and religious instruction. 2.45—Vespers. 3.30—Recreation. 5.00—Study. 6.00—Chaplet and Benediction of the Blessed Sacrament. 6.30—Supper. 7.00—Recreation. 8.00—Evening prayers. 8.15—Bedtime.

To measure even more the value of this preparation, we appeal to an argument which, though negative, is none the less expressive. It consists in the results of the annual examinations for the B.A. degree, to which may be admitted only those who have completed to the last day the eight years' classical studies, after their seven years of preliminary schooling. We draw these results from the only existing official document, which is the table published since 1905 by the central organ of the colleges, the faculty of Arts of the universities. However, a few preliminary explanations are necessary to give a clear idea of our organization leading to the B.A. degree. These details will prevent from being accredited the idle talk which has so often been uttered on our account in misinformed circles.

With us, the six years of literary studies (from the Sixth Form to Rhetoric inclusive) end with an examination on Letters and the two years of science-philosophy close with an examination on science. Together, these two constitute the Bachelor's examination.

Amongst the subjects of these two tests, on Letters and on Science respectively, some are termed collegiate or local and the others university subjects.

The collegiate or local subjects, for the literary portion, are general history, history of Canada, geography, principles of composition, literary history, and religion; for the scientific portion, natural history, astronomy, chemistry, and religion. The examination on these subjects is passed in each affiliated college, according to the university program and regulations, but under the supervision and on the responsibility of the local superiors. The results of these examinations do not count for the diploma, but are the entrance requirements to the university tests.

The university subjects are: for letters, essay, latin version, latin theme, Greek version, French or English theme; for science, mathematics, physics, philosophy (logic, ethics and metaphysics).

The university selects, among the questions submitted by the affiliated colleges, those which form the university examination. This test, supervised by the professors of the faculty of Arts, takes place in all the colleges, on the same questions, at the same date (stated by the Rector in consultation with the superiors). It lasts twenty-nine hours. The candidates bring with them neither books, nor notes, nor even paper; they are furnished with everything they need on the spot. Their names must not appear on the papers; they use figures instead, and their names are only revealed after the corrections are finished.

Immediately after the examination, the tests are sent to the university. They are corrected by a committee composed of pro-

fessors of the faculty of Arts. The results, with the corrected papers, remain with the university, to be filed for reference.

The result of the university examination alone entitles to the degrees of B.A., B.Sc. or B.L., as the case may be. The candidate becomes Bachelor of Arts if he be credited with 60 per cent. of the points on the total of the university tests for both Letters and Science. The candidate becomes Bachelor of Science if he be credited with: (a) 60 per cent. on the total in Science; (b) 50 per cent. on the total in Letters. The candidate becomes Bachelor in Letters if he be credited with: (a) 60 per cent. on the total in Letters; (b) 50 per cent. on the total in Science.

To establish still more precisely the relative merits of the degrees, we inscribe on the diplomas the following mentions: *Avec distinction, avec grande distinction*; equivalent to the English university honours and first class honours.

These explanations concerning our Bachelors' degrees being given, here is the argument of which we were speaking: In 1887, we believe, the provincial parliament passed a bill known as the Hall Act. In virtue of this law, the diploma awarded by the university to its Bachelors is equivalent to the extrance examinations (brevet) passed before the boards of examiners constituted by the different professions. The equivalence was at first admitted for the study of law and medicine. Later ⁸ it was extended to the professions of dental surgery, civil engineering, surveying and architecture. The concession of this privilege is an honor to the members of parliament at that time. How many of our pupils have benefited by this advantage, the following table, which covers a period of eight years, will show us. It was prepared when all the colleges of the province depended on Laval University of Quebec.

⁸ *Revised Statutes of the Province of Quebec*, Art. 4775, 5045, 5120, 5156 and 5158, 5243.

BACCALAUREATE 1905—1913

First Examination—Letters					Second Examination—Science					
Order of Affiliation	Candi- dates	Admis- sible in both Sec- tions	Regis- tered	Null	Admis- sible in the Uni- versity Section	Candi- dates	Admis- sible and Bachelors in the Two Sections	Regis- tered	Null	Admis- sible and Bachelors in the Univer- sity Sec- tion
1. Quebec.....	249	130	105	12	99	211	100	101	10	80
2. Nicolet.....	210	89	94	25	57	166	103	60	3	85
3. St. Ann's.....	155	65	83	7	45	112	77	36	0	63
4. St. Therese.....	174	72	94	8	40	137	100	33	5	96
5. Three Rivers.....	142	77	64	2	30	107	70	37	1	52
6. Rimouski.....	94	38	38	19	17	66	34	29	4	28
7. Chicoutimi.....	82	35	41	5	25	63	36	24	4	31
8. Sherbrooke.....	119	38	64	17	14	74	47	25	3	34
9. Lewis.....	134	47	68	19	26	90	53	37	1	44
10. St. Hyacinth.....	181	100	75	6	58	133	59	68	6	50
11. Monnoir.....	58	42	14	2	24	29	23	6	0	19
12. L'Assomption.....	171	62	94	15	44	129	82	45	2	65
13. Joliette.....	149	51	79	19	32	135	78	43	5	69
14. St. Laurent.....	95	24	54	17	9	48	25	22	2	23
15. Bourget.....	89	28	44	18	15	52	33	19	0	31
16. Montreal.....	174	128	46	0	108	124	81	36	7	68
17. Valleyfield.....	62	26	32	4	15	48	25	19	5	17
18. St. Johns.....	4	2	2	0	0	2	1	1	0	1
19. Nominigue.....	2	1	1	0	1	1	1	0	0	1
Totals.....	2,344	1,055	1,092	197	659	1,727	1,028	641	58	857

Since then, twelve of these institutions have been affiliated to the new Montreal University. The following table indicates the number of their Bachelors since the affiliation to Laval (Quebec) and until September, 1922, inclusively:

	<i>Letters</i>	<i>Science</i>	<i>Arts</i>
Montreal (1887).....	56	16	301
St. Hyacinth (1880).....	221	100	287
St. Therese (1863).....	296	126	227
L'Assomption (1880).....	90	133	254
Joliette (1880).....	84	182	255
St. Laurent (1880).....	61	40	106
St. Mary's (1889).....	170	199	173
Bourget (Rigaud) (1884).....	28	58	91
Sherbrooke (1880).....	78	53	125
Valleyfield (1896).....	29	12	70
Notre-Dame Ladies' College (1909).....	3	..	74
St. Johns (1912).....	4	2	36
Totals.....	<u>1,120</u>	<u>921</u>	<u>1,999</u>
Total sum.....			4,040

We will not insist upon these facts.⁹ Those who understand our system will draw their own conclusions. This proportion, for eight years (1905-1913), of 1,055 admissible on 2,344 competitors in Letters and 1,028 admissible on 1,727 competitors in Science; that is, of 1,028 Bachelors on 3,455 candidates to the two examinations,¹⁰ this proportion, which remains almost identical throughout the list of the colleges affiliated to Montreal University, is as significant as can be. It demonstrates how strictly our colleges treat their pupils, and with what vigilance they dismiss those who are not generally competent.

A polemic has recently arisen concerning the "Brevet" or entrance examination to the liberal studies. A Montreal newspaper declared the B.A. could be obtained in the classical colleges between the ages of sixteen and eighteen. It concluded there was an injustice on the part of the professional bodies towards the English minority. Statistics establish that pupils enter Humanities (*Belles-lettres*), which is the form corresponding to the first

* The tables only indicate those who have taken the complete course; whosoever leaves college before the end of the course loses the right to the diploma and must pass the Entrance Examinations before the professions' boards. Incomplete records have prevented us from taking into account the September Supplemental Examinations. Finally, we have eliminated all partial results, all pupils of colleges which are only aggregated, all competitors classed under the headings of *University* and *Private Studies*.

¹⁰ From the total number of candidates, 4,071, must be subtracted the competitors in Rhetoric for 1911-12 and 1912-13, viz., 295 and 321, a sum of 616. These only had a right to the diploma after the Philosophy examination of 1913-14 and 1914-15. There remained then 3,455 candidates to the two examinations.

year (Freshman) of the college or Arts course in the English universities, at the age of 17 2-3 years. The pupils in Senior Philosophy average, at the beginning of the fall term, 20 years and 10 months. At the end of the year, the average age of the candidates to the B.A. is then 21 2-3 years. This equals, if it does not surpass, the average age of the candidates in the English universities. This is another proof that pupils in our colleges take the time wanted to acquire general culture.

And it is really a question of general competence and culture which is at stake. This is too often forgotten when speaking of the colleges. They are neither machines for the turning out of paragons or of walking encyclopedias, nor are they schools preparatory to finance, or commerce, or arts and trades. Their object is to form a civil and religious elite, therefore intellectual, moral and social. The success they have achieved is highly attested by the history of our country, by their own private annals and by the official records.

Are we to infer that our professors have no other ambition? Do they bar their doors to the fair requirements of modern times?

Nowadays, the call is for pedagogical training. Our colleges did not wait for the pressure now prevalent; it would suffice, to prove it, to produce the imposing catalogue of the professors who have already sought in famed overseas universities to perfect their gifts of nature. Let us leave aside for a moment, the learned men of France whom the religious persecution in their own country sent over to ours. The Abbe Hermas Langevin¹¹ has drawn up a list of our masters who specialized in canon law, theology or philosophy. In 1913, we ourselves were able to enumerate in our institutions two Masters of Economic and Social Sciences (Louvain); two Masters of Arts (Science) in the Sorbonne; one Master of Arts of Johns Hopkins' University, Baltimore; four former students in Science at the College de France, the Sorbonne and the Institut Catholique of Paris; one Doctor of History, University of Louvain; nine Masters of Arts (Literature), six from the Sorbonne, one from the Institut Catholique of Paris, one from Lille, one from Lyons. At that date, had already departed one M.A. (Science) and two M.A.'s (Literature), all three from the Sorbonne. We could add to this list those who, without seeking the degree, had almost completed in Europe a superior course in literature: they numbered twenty-one at that time.

Since then, others have unceasingly followed them abroad, in England, Ireland, Belgium, France, Germany and Italy. Two Superior Normal schools, prepared slowly but surely, have been opened in Quebec and in Montreal, for the teaching staffs of

¹¹ *Le College Canadien a Rome—Les Premiers 25 Ans*, (1888-1913), Chap. IV., P. 35-71.

secondary education. Triennial congresses give our professors an opportunity to exchange their ideas and to refresh their methods. The annual reports of the board of examiners for the B.A. degree, inaugurated in 1912, gave rise to the publication of a bulletin in which, since 1913, the masters express their views, apply their methods and propose their conceptions of reform.

For, nowadays, the call is also for reform. Our colleges have appointed two special committees, one in Quebec, the other in Montreal, whose business it is to reason out and foster the reforms which they consider becoming. Four times a year, these committees meet to discuss matters. They lay before the superiors each year, and before the general meeting of the colleges every three years, a whole series of proposals. Everyone can see for himself, from the reports of these gatherings, how little we step back when facing true progress.

Some have complained that the teaching of mathematics was not sufficiently adapted to actual needs. According to a scheme which has received the approbation of the authorities, the curriculum now concurs with that of the professional schools. Some of the colleges have introduced into their classes practical book-keeping and lessons in banking. There have been complaints also concerning the teaching of English. Almost everywhere, efforts have been made to better this part of the course, although there has been hesitation as to the means of attaining the end desired. English classics may eventually be substituted to the business language which is taught at present. It seems to us that the problem will then have been almost solved. This is the opinion adopted by the institutions which have sent some of their masters to universities in England, Ireland and the United States.

Finally, the call, nowadays, is for the teaching of things Canadian, for the study of things foreign, from a Canadian standpoint. Especially in this domain, our colleges, far from remaining in the background, have bravely marched forward. In 1913, an inquiry threw some light on this subject. We will soon possess a complete series of our own manuals. The teaching staff of the Quebec Seminary are to be highly praised for the number of Canadian books which they have introduced into our classes.¹² One of

¹² We wrote (*Revue Canadienne* new series, Vol. X., No. 1, July 1912, P. 43): "The theory of nationalization seems to become more and more understood and applied. Our manuals of instruction are the fruit of the mind and labor of our own fellowmen. When has intellectual production on this ground been more abundant. After the *Elements de Mineralogie, de Geologie, et de Botanique*, by Mgr. Laflamme; the *Summa Theologica* by Mgr. Paquet; the *Traite de Physique* by Abbe Simard; the *Manuel de la Parole* by Mr. Rivard, has not the same Quebec Seminary which had brought forth these publications given us also the *Philosophia Peripatetico-Scholastica* by Abbe Lortie; *L'Art d'Ecrire et les Genres Litteraires* by Abbe Dion; the *Grammaire Francaise*, by Abbe Aubert; Abbe Garneau's *Geography*; the *Manuel d'Histoire de la Philosophie*," by Abbe Robert." Since that date, the number of home manuals has increased. At least, those which were too old have been laid aside and replaced by the most recent schoolbooks.

our professors, who is familiar with the archives in Ottawa, will soon issue the most desired part of a course in History of Canada, that which treats of the English regime. It has even been suggested to form into a special section the teaching of the institutions, history, geography and literature of Canada.

To effect these wise reforms, as well as to continue the work of tradition, our professors request only two things: that they be sufficiently left to judge, if not what they should do, at least what they can do; and that their present activities be not appreciated according to the methods of days gone by.

If these tokens of mere courtesy be extended to them, they will remain mute as in the past, when their "seminary" or "non-practical" education is scorned at. In silence, they will contribute to the training of more statesmen and more churchmen like those who are envied the province of Quebec by several of her sister provinces.

BRIEF HISTORICAL SKETCH OF THE COLLEGES UNIVERSITY REGION OF QUEBEC

Quebec Seminary

Quebec Seminary was founded in 1663 by the Very Reverend Bishop Laval. The Little Seminary was opened on October 9th, 1668.

Until 1680, the Seminary had no income but a few minor pensions, the pupils' very low tuition (100 fcs.) and, above all, the generosity of the founders.

The beginnings were very modest. From 1668 to 1677, the pupils were lodged in a little house which Bishop de Laval had purchased in 1666 with the ground upon which it stood. Later, His Lordship managed to build a more spacious residence for the children. This structure with its out-buildings was destroyed by fire in 1701. Economy and privation were the conditions which finally led to the rebuilding. But the work of reconstruction was hardly over when, in October, 1705, the seminary was again completely gutted by fire.

The campaigns of the Seven Years' War, particularly that of 1759-60, were the cause of considerable loss to the college. Thanks to the generosity of Mgr. Briand, and to his encouragements, thanks also to the sacrifices and to the almost superhuman work of its priests, it gradually regained its own. The new burdens which the seminary took upon itself later on, especially in 1852 when the university was founded, have been and are still a financial impediment to its desire of doing more and doing better.

Nicolet Seminary

Nicolet Seminary owes its origin to a free parochial school,

founded in 1801 by the will of Father Brassard, parish priest of Nicolet. Bishop Denaut, upon the entreaties of his coadjutor, added Latin classes to the school in 1803. But its true founder and organizer was the Right Reverend Bishop J. O. Plessis. The college was considerably enlarged in 1807 and 1813 by this illustrious prelate, whose generosity for this institution knew no bounds. He solicited from London letters patent for this establishment and obtained them December 10th, 1821. By this royal patent the administration of the seminary was entrusted to a corporation of secular priests, under the presidency of the diocesan bishop.

In 1827 the actual buildings of the seminary were begun under the patronage and at the expense, at least in part, of Bishops Panet and Signay, successors to the Right Reverend Bishop Plessis. The new seminary, opened in 1831, is like the old one situated on the banks of the Nicolet River, two miles from the shores of Lake St. Peter; it is surrounded by gardens and groves which make it a healthy and agreeable spot. A new building, containing a hall and a chapel, was erected in the middle of the principal block as a memorial of the institution's centennial, celebrated June 10th, 1903.

Nicolet Seminary is affiliated to Laval University since 1863. On the 22nd of February, 1908, the Theological seminary was canonically established.

Ste-Anne de la Pocatiere College

Ste.-Anne de la Pocatiere College was founded in 1827 by the Abbe Charles-Francois Painchaud, curate of said parish. What were the means of the founders? The revenues of the parish priest, the co-operation of his parishioners and of a few citizens of the neighboring villages, the subscriptions of his friends. The classes were opened on October 1st, 1829. The need for larger quarters was felt in 1841, 1855, 1900 and 1913. Each time extensions were added. Located on the boundaries of the old counties of Devon and Cornwallis, the college was incorporated in 1834 by an act of the legislature of Lower Canada, amended in 1862 (4 William IV., Chap. 35; 25 Vict., Chap. 78).

In 1842, the curriculum was divided into two entirely distinct sections, the classical course and the bilingual commercial department. The latter was outlined by Abbe Thos. Benjamin Pelletier, after the system followed by the Jesuit College in Georgetown (D.C., U.S.). On May 12th, 1863, St. Ann's College was affiliated to Laval University.

In 1859, the administrators of the college founded an agricultural school, whose native building was replaced in 1911, with the assistance of the provincial government, by a spacious and appropriate edifice. However, further enlargement is already imperative to accommodate the increasing number of pupils who wish to study in this school, affiliated to Laval University. The

extension now undergoing reconstruction, after last year's fire, will be ready for the 1923 fall term.

St. Joseph's Seminary

The seminary of Three Rivers was founded in 1860 by His Lordship Bishop Thomas Cooke and the Honorable J. E. Turcotte. It was authorized by an act of the legislature, sanctioned on the 19th of May, 1860, and its civil charter was granted on the 28th of January, 1873. On the 19th of March of the same year, the Very Reverend Bishop Lafleche canonically set up the seminary of Three Rivers as the diocesan seminary. The college is affiliated to Laval University since 1863, the Theological seminary since 1909. St. Joseph is the patron of the institution.

Situated at a short distance from the St. Lawrence and from the St. Maurice, on a vast and healthy estate of high altitude, surrounded by gardens and recreation grounds, with gymnasium and tennis-court, the college offers a most agreeable abode to the pupils.

The seminary also owns the magnificently shadowed grounds commonly called "The Pines."

The course of studies is divided into two sections—classical and commercial. In both, the teaching is based on religion.

Chicoutimi Seminary

Chicoutimi Seminary was founded in 1873 by Mgr. Dominique Racine, then Vicar-General of the Diocese of Quebec and parish priest of Chicoutimi. On the 15th of August of the same year, the Most Reverend Bishop of Quebec, who became in 1886 His Eminence Cardinal Taschereau, canonically erected the new institution and placed it under the protection of the Holy Family.

In 1879, it was incorporated by an act of the provincial parliament of Quebec.

In 1877, the seminary was affiliated to Laval University and its curriculum has always been according to the regulations of this institution. The education imparted in this college is, over and above all else, essentially religious.

The studies last ten or eleven years and are divided into two parts: the commercial course, which includes five years; and the classical course, comprising six forms, the two years of Philosophy—Sciences inclusive.

The business class completes the commercial course. Here instruction is given chiefly in English. All commercial subjects are taught with great care, from a practical point of view, so that pupils who follow this course are equipped to advantageously fulfil any situation which may be offering in banks, business offices, etc.

The affiliation of the Theological seminary to Laval University dates back to 1890.

Rimouski Seminary

The question of the origin of Rimouski Seminary has not been definitely settled; some date back the foundation to 1855, others to 1852. Dr. Meilleur feels that the Abbe George Potvin, vicar to Father Cyprien Tanguay of Rimouski, was the man who made this institution what it is today (*Memorial de l'Education*, 2nd edition, p. 265.)

1863-64 marked the opening of the boarding school and the beginning of the classical course.

In 1868, the Very Reverend Jean Langevin, first Bishop of St. Germain of Rimouski, established in the diocese the "fifteen cent offering to help in the construction of the seminary. Inaugurated in 1878, this college was destroyed by fire in 1881. Since, the seminary occupies the convent built by the Sisters of the Congregation of Notre-Dame, and which was enlarged in 1905.

In 1870, Bishop Langevin canonically erected Rimouski College into a diocesan seminary.

The number of pupils has doubled since the first years of the foundation: from 140 it now reached 300. A new extension is called for. Handicapped financially, Mgr. Tanguay has not been able to organize and establish the industrial, agricultural and commercial college which he had planned. Despite the wretched poverty of the beginnings, the classical college has lived and developed, slowly but surely, with the protection of the clergy, of several lay benefactors, and of the Very Reverend Bishop Blais.

Levis College

Levis College was founded in 1853 by Mgr. Deziel, curate of Notre Dame of Levis. There was at first only a commercial course, under the direction of the Brothers of the Christian Doctrine. In 1856, Mgr. Deziel introduced into the schedule of studies the rudiments of Latin. The seminary of Quebec took the college under its guidance. Messrs. Gauthier, Roussel and Langis succeeded one another as directors, and the pupils who displayed signs of a religious vocation were directed towards the Quebec Seminary to complete their studies. In 1872, the addition of a business class to the commercial course already established, placed the college in an important position amongst the schools which trained subjects for commerce. In 1874, Quebec Seminary abandoned the direction of the college, which thereafter depended upon itself alone. In 1875, the lieutenant-governor sanctioned the college's incorporation. In 1876, the classical course was definitely established, and completed in 1880, with the co-operation of Mr. R. M. G. Sauvageau, Second Superior, who was principally assisted by Messrs. Lionel Lindsay and C. E. Carrier; and the same year the college was affiliated to Laval University.

Mont Laurier College

Since 1879, the Colonisation Society had resolved to found a college which would assure education to the children of the northern townships. To accelerate the work of colonisation, one thousand acres of land were allotted to the Jesuit Fathers who came to establish in Nominingue in 1883. The college was incorporated at that time.

In 1891, the Jesuits were replaced by the Fathers (Chanoines reguliers) of the Immaculate Conception, who accepted to continue the missionary work at Nominingue. This vital undertaking, of which Bishop Labelle had had the intuition, although still in its first period, is nevertheless an accomplished fact.

This college has divided its instruction into a preparatory course, a three years' commercial course and a five years' classical course. It is affiliated to Laval University and is now on the same footing as the older colleges.

The institution was transferred to Mont Laurier when the diocese bearing this name was created.

St. Alexander's College

The objects of St. Alexander's Apostolic College is to train for the Holy Orders the young men who feel God is calling them. It is only exceptionally, and for serious reasons, that it receives young men whose ideas on the choice of a career are not yet determined. To attain its end, St. Alexander's has an ideal location. Near enough to Ottawa to enjoy the advantages of the city, and far enough not to be disturbed by its hustle and bustle, the establishment is one hour from the capital, less than a mile and a half from the Ironside Station, on the left banks of the Gatineau.

The college, situated in the province of Quebec, is affiliated to Laval University, and prepares pupils to the university degrees, but its very object precludes a commercial course.

The two languages of Canada, French and English, are taught with special care so that our future priests may, conforming themselves to the precept of the Apostle, be "all to all."

Montreal Seminary

Montreal College or Seminary was opened in 1767, during the hardest days of the colony. Its founders were Father J. B. Curatteau, priest of St. Sulpice and curate of Longue Pointe, a deeply learned man of eminent virtues. Transferred to the Manor of Vaudreuil in 1773, thence to College Street in 1806, it was fixed to the foot of Mount Royal in 1862; the definite establishment of the college as it is today only dates back to 1870.

This institution, directed by the Priests of St. Sulpice, has for its principal end the preparation of young men for the ecclesiastical state.

The course is exclusively classical and lasts six years.

The pupils, on leaving Rhetorics, enter the seminary of

Philosophy to follow there, during two years, a course in Philosophy and in Science.

St. Hyacinthe Seminary

St. Hyacinthe Seminary was founded in 1811 by Abbe Antoine Girouard, Archpriest, curate of the parish of St. Hyacinthe. Its incorporation dates back to 1835.

The actual building, constructed in 1853, forms a square 200 ft. long and contains an inner court.

In 1910, a fireproof annex was built, measuring 172 by 60 ft., and four stories high. This is occupied by dormitories, laboratories, class-rooms, a convocation hall, etc.

St. Hyacinthe Seminary is directed by a community of secular priests. Its curriculum is that of the university.

Ste-Therese Seminary

The beginning of this institution dates back to 1825. In that year, Father Charles Ducharme, pastor of Ste.-Therese, chose five or six young men of his parish who seemed well disposed to study and began to give them their first lessons in Latin, during the evenings when his ministry left him a few moments of leisure. Later, in 1840, the Very Reverend Ignace Bourget erected the establishment into a seminary, according to the rules of the Council of Trent.

In 1845, the seminary was incorporated by an act of the Canadian legislature. Burnt into ashes on the 5th of October, 1881, the institution soon arose from its ruins, thanks to generous friends, former pupils, and the provincial government.

The new college was solemnly inaugurated on the 26th of June, 1883. From that time, the institution recovered its regular course of life and development. Recently it has been again extended by the construction of a building 70 ft. square.

The classical course covers eight years. A commercial course of four years or more is opened to pupils whose parents' wish it is to apply them exclusively to the study of French, English, book-keeping, etc.

Lessons in vocal music and plain-chant form part of the regular instruction.

L'Assomption College

This college is conducted by priests of the secular clergy.

Founded in 1832 by Father Francois Labelle, at the time parish priest of L'Assomption, together with Dr. J. B. Meilleur and Dr. L. J. C. Cazeneuve, it was incorporated on September 18th, 1841, by an act of the provincial legislature.

A complete classical course is given and preceded by a preparatory or elementary course.

The classical course forms the principal part of the instruction given.

The duration of the preparatory course varies according to the qualifications of the pupils. It comprises French and English, Penmanship, Arithmetic, History and Geography.

Vocal music and Gregorian chant form part of the regular course.

There are two literary societies: The French Academy, called St. Francis Xavier Academy, and affiliated to the A.C.J.C. (French-Canadian Young Men's Association) in 1905; and the English Academy, called St. Patrick's Academy. The object of these societies is to develop the study of the French and English languages, of public-speaking, and the culture of science and of letters.

Joliet Seminary

Joliette Seminary, founded in 1846 by the Honorable Barthelemy Joliette, with the approbation of the Very Reverend Ignace Bourget, Bishop of Montreal, is under the direction of the Clerics of St. Viator.

The studies are divided into three courses: Preparatory, commercial and classical.

The preparatory course serves as a preparation to both the commercial and classical courses. It is especially devoted to the study of French, English, Arithmetic and Penmanship.

The commercial course is complete and covers all requirements. Upon its termination, pupils are submitted to a severe examination on the commercial subjects and diplomas are awarded to those who pass it successfully.

The classical course, sanctioned by the double test of the B.A., admits the young man into either the ecclesiastical and religious state or into the liberal careers.

St. Laurent College

This college was founded in 1847 by Abbe Saint-Germain, pastor of St. Laurent, who obtained from the Very Reverend Bishop Bourget the permission to build at his expense an industrial academy. Called here from France, the Fathers of the Holy Cross took possession of the academy and established in Canada. Two years later, they were incorporated by the legislature. In 1862, their charter was modified to allow the name of Industrial Academy being changed to that of St. Laurent College, and to authorize the establishment to give a classical course.

In 1852, 1864, 1882 and 1896, were built different blocks which form part of the college which now measures 360 ft. long and is further lengthened at the back by three wings averaging 140 feet.

The curriculum is divided into two sections. The commercial course, for the pupils who have been promoted from the fourth year in the public schools, comprises five years. The classical course, of eight years, is affiliated to the university.

St. Mary's College

In response to the desire of the citizens of Montreal and to the request of the Venerable Bishop Bourget, the Fathers of the Society of Jesus inaugurated St. Mary's College on the 20th of September, 1848. The Jesuits could from thence return to the work of the old Society and revive in Montreal the traditions of the old Quebec College.

The "little college" which then opened its doors to thirteen children, has long since grown into a vast block which receives over 600 pupils. The object of this institution, today as of old, is the mediate preparation of youth to the priesthood and to the liberal careers.

In virtue of a privilege granted by Pope Leo XIII., on February 2nd, 1889, the graduates of St. Mary's College have a right to the B.A. degree, which gives them immediate access to the study of any profession in our universities.

Bourget College

Bourget College, founded by Mgr. Joseph Desautels in 1850, is under the direction of the Clerics of St. Viator.

The immediate aim pursued by the college is the preparation of young men for the priesthood, for the liberal as well as for the various commercial and industrial careers.

The classical course extends over seven years and comprises all the subjects of secondary education, including scholastic Philosophy.

The commercial course is given in English. After three years, the pupils appear before a board of examiners who award a diploma for the complete course to candidates obtaining 75 per cent. of the total marks.

There are, moreover, preparatory classes, the program of which covers complete primary instructions for the children who cannot entertain more lofty aspirations.

St. Charles Borromeo Seminary

St. Charles Seminary was founded in 1875 by the Right Reverend Antoine Racine, first Bishop of Sherbrooke. The venerable founder decreed that the curriculum would comprise a classical course and a commercial course, and that teaching would be given in both French and English.

From 1878 to 1917, 344 young men have gone out bearing a commercial diploma. Many of them afterwards undertook the classical course.

On the 30th of December, 1897, a fire destroyed part of the seminary. The Very Reverend Bishop Larocque had the beautiful new building made fire-proof. It is five storeys high and measures 200 feet long by an average of 55 feet. After eleven

years, the number of pupils was so large that a new extension was necessary, and the seminary council built a new annex of 120 by 52 feet, five storeys high and fireproof.

In 1903, was founded the Art school, designed to prepare pupils for entrance into the Montreal Polytechnic school and the school of Surveying in Quebec. Unfortunately, the limited resources of the seminary have not yet allowed this course to develop as it should have for the benefit of the young men of the Eastern Townships.

Valleyfield College

Valleyfield College was founded in 1893 by the Right Reverend J. M. Emard, first Bishop of Valleyfield.

It is under the direction of a society of secular priests and the immediate supervision of the bishop of the diocese.

It is composed of two distinct sections. The commercial department comprises all subjects adapted to a good commercial education; the course lasts five years. The classical course bears the special name of seminary and is organized according to the university curriculum. It extends over eight years.

To the college is attached a diocesan theological seminary, where students enter upon pursuits of this nature. This seminary is also affiliated with Laval University, Quebec, since 1907.

Notre-Dame Ladies' College

Notre-Dame Ladies' College is nearly fifteen years old, its inauguration dating back to October 8th, 1908.

The regular course covers four years. It is divided into several sections: Letters, Science, Arts and Commerce, Household Science. All examinations are submitted to the university.

On the other hand, pupils who only wish to follow special courses are free to do so as well as to pass the examinations or not. Successful examinations give right to diplomas absolutely similar to those conferred by the university on its students in Literature.

The curriculum for the last four years is the same as that followed by the seminaries and colleges.

St. Johns College

St. Johns College was founded in 1911 by the Most Reverend Paul Bruchesi, Archbishop of Montreal, and placed under the direction of secular priests.

The first building, 155 feet long and 40 feet wide, four storeys high, having become insufficient, an annex 100 feet long and 47 feet wide, four storeys high also, was built during the summer of 1912.

Incorporation was granted on the 14th of March, 1912.

The instruction is divided into two sections of six years: A commercial course and a classical course. The first years of the commercial department prepare the pupils to the classical course.

B. University Co-operation in Serving Their Combined Constituencies

President Murray

Not many years ago competition dominated university policy in Canada. Each university sought to rival its neighbours in attracting students and winning public support. If one university discovered an attractive feature or offered a new course, its competing neighbours felt obliged to duplicate or surpass.

In recent years there has been a marked tendency to co-operate in rendering to the public the greatest service possible for the universities in combination. In the west, where provincial support and provincial control have reduced competition to friendly rivalry in serving, each its own constituency, the possibilities of co-operation have become greater.

Financial stress is now forcing the universities to consider to what extent it may be possible for a group of universities to render greater service at less cost to their combined constituencies by a division of labour. Where several universities receive grants from the same treasury, as in England or Ontario, public opinion is demanding the prevention of duplication. Where the universities receive their grants from different treasuries, public opinion is less insistent though well disposed to having economies effected by differentiation of work.

An example will indicate what could be done. Each of the three universities on the prairies has a faculty of Engineering. In each faculty there is a department of Civil Engineering, the fundamental department in Engineering. Manitoba has developed a strong department of Electrical Engineering; Alberta one of Mining; and Saskatchewan a department of Ceramic Engineering. Each must provide elementary instruction in Mechanical and Electrical, but need not provide fully equipped and well-staffed departments for these branches.

It seems wise for the universities to agree that Manitoba shall serve the three provinces so far as the higher work in Electrical Engineering is necessary; Alberta shall serve the three in Mining; and Saskatchewan the three in Ceramics. This proposal would give the three provinces, regarded as a unit, strong departments in Civil, Electrical, Mining and Ceramic Engineering at much less cost and with greater efficiency than would be the case were each university to attempt all these branches of Engineering. If this were done, it would be necessary for the experts in one department of Engineering to be ready to advise and assist the industries in each of the three provinces without respect to provincial boundaries or provincial support.

The line of least resistance and of greatest promise of success lies beyond existing schools and departments. For example, there

is no school of Veterinary Science on the prairies; there is but one school of Dentistry and that only partially developed; there is no school of Business Administration offering other than courses in Accounting or the standard courses in Economics and possibly Geography. If it were agreed that Alberta would develop its school of Dentistry and serve the three provinces; that Manitoba would provide the school of Business Administration; and Saskatchewan the school of Veterinary Science, better service could be rendered to all the provinces at about half the cost than by each province establishing three schools within its borders.

There are other fields where co-operation may be possible. A school for training specialists in Education, another for training specialists in Household Science, and another in Music, could render much service to the prairies. It might be possible for the three universities to agree among themselves as to which would become responsible for which school and when each should be established.

With regard to existing schools, the possibilities of a division of labor are much less. Manitoba has a fully developed Medical school; Alberta a school that will be of Class A rank in full operation next year. Saskatchewan is contemplating the establishment of departments of Anatomy and Physiology, so that her students may complete the three scientific of the six years of a Medical course. Saskatchewan should refrain from attempting more.

The five Law schools on the prairies have been reduced to three. Urban rivalries were responsible for the duplication. Would provincial ambitions consent to the further reduction of the three to one? The three schools in Accounting have grown because of the requirements of the profession in each province. Could they be reduced to one? The amalgamation of the schools of Pharmacy is equally possible, though the attendance in Pharmacy is probably three times as great as that in Accounting.

Theoretically the nine schools of Law, Accounting and Pharmacy could be amalgamated so that there would be one school for each profession in the three provinces; and the provinces could agree among themselves as to how the division of responsibility for the combined schools could be made. Of course, provincial ambitions would assert themselves. Doubtless, it would be less difficult to control these ambitions if we were beginning *de novo* and could assign one school to each province. Is it possible or advisable now to attempt to amalgamate existing schools and to allocate the combined schools to the three provinces? The existing schools have been in successful operation for some time, and have, to some extent, established local traditions.

If it were certain that the population of the three provinces would show but slight increases in numbers and in resources in the next twenty years, the reasons for drastic reduction would be

much stronger. On the other hand, if there is a reasonable prospect of the population and resources being doubled within that time, "watchful waiting" may be the wiser policy.

Agriculture is a subject so vital and so wide in its appeal that each province must build up a strong school within its borders. There is, however, a possibility of one school emphasizing one department, another another department, and a third another, and so on. For example, Saskatchewan might give special attention to Agricultural Engineering, Alberta to Live Stock, Manitoba to Horticulture and Apiculture.

These suggestions have been confined to the three prairie provinces. The principle underlying them could be applied to Ontario and more particularly to the three Universities receiving grants from the same treasury. It could also be applied to the universities opening graduate schools. Even British Columbia, separated from the prairies by a sea of mountains, might find a place in a co-operating group. For example, British Columbia could serve the four western provinces in graduate work in Nursing, Specialized Dairying, Forestry, and possibly other branches. What service the prairies could give in return would depend upon British Columbia's wishes.

This paper is not intended to sketch a possible program, but to throw out suggestions for the purpose of provoking discussion. It is only by sympathetic discussion and mutual agreement that effective reforms can be brought about. One thing, however, is beyond question, that is the reception which the tax-burdened public would give to a sane and effective program of co-operation in dividing the labour and expense of providing adequate university facilities for the people of Canada.

C. Report of Committee on Graduate Work

Dean Adams

The committee met and considered three plans for co-operation in graduate work among the Canadian Universities, which had been suggested by Professor Sage of the University of British Columbia, Dean Brock of the same university, and by the chairman, respectively.

Professor Sage's plan in outline is as follows. It proposes:

"(1) The creation of a national Graduate Study Board. This board is made up of one representative from each Canadian university which is ready to undertake Ph.D. work in whole or in part; this board to have the oversight of all Ph.D. work offered by any Canadian university. It is to accept candidates for the Ph.D. degree, and to assign such candidates to professors under whom they shall work. It is also to appoint examiners and to

issue certificates entitling the successful candidates to receive the Ph.D. degree.

“(2) The conferring of degrees is not to be a function of the board. It is suggested that the successful candidate receive his degree from the university under whose auspices his final examination is conducted.

“(3) It is suggested that a Royal Commission be appointed whose duty it shall be to settle the standard required for the Ph.D. degree. It would seem advisable that the commission be composed of five members selected as follows: One from the British Isles; one from France; one from the United States of America; and two from Canada.

“(4) After the Royal Commission had reported, it should be the duty of the board to make a thorough investigation into the status, personnel, equipment, etc., of any department of any university which offered to do Ph.D. work. The board should also be empowered to refuse to allow that university to do graduate work in the department leading to the degree of Ph.D., if in the estimation of the board this work was not up to the standard set by the Royal Commission.

“(5) A candidate for the Ph.D. degree is to register provisionally at a Canadian university. His candidacy is to be accepted or rejected by the board at its next meeting, and a professor is to be appointed with whom he must consult concerning his work.

“(6) The candidate may move from one university during his course of study. Final examinations for the degree of Ph.D. will be conducted by the examiners named by the board, but not by anyone who has taught the candidate.

“(7) The degree of Ph.D. to be conferred by the university holding the examination, on receipt of a certificate from the board that the candidate has passed his examination and is eligible for the degree.”

Dean Brock's proposed plan is set forth in his paper, read at the Eighth Conference of Canadian Universities, held in Winnipeg in 1922, which is printed as Appendix I. in the report of this meeting.

The plan suggested by the Chairman (Dean Adams) may be set forth as follows:

“The higher degrees to which a student who enters the graduate school in any Canadian university proceeds are: (a) The degree of Master (of Arts, Science, Agriculture, etc.); (b) the degree of Doctor (of Philosophy, Music, etc.)

“*For the degree of Master.*—To enter the graduate school of any university it should be first agreed that the student must already have received a degree of Bachelor (of Arts, Science, Agriculture, etc.). On entering the graduate school for the purpose of proceeding to the Master's degree, he should be required

to follow a course of one year's resident graduate study, and to that end would be required to:

"(a) Select one subject, or two subjects (a major and a minor).

"(b) This subject, or the major subject if he selects two, must be a subject for which he has been suitably prepared in the preliminary work of his undergraduate course.

"It is understood that the Master's degree represents an attainment in advance of Honour B.A. or B.Sc. standing in the subject which he selects, the Master's degree not being a degree which represents merely a wider general education but one which gives the student advanced training in some subject which he has already studied for at least one year, or two years, before entering the graduate school. A student, for instance, cannot have followed an undergraduate course, even with honours, in Classics or Chemistry, and then enter the graduate faculty taking an entirely different subject, such as Hebrew or Botany. If he has followed an undergraduate course in Classics, he must continue his course in that subject, or if he desires to take post-graduate work in Botany, he must have had an adequate undergraduate preparation for the work in this subject.

"(c) The attainments in the subject which the student selects to follow, before the Master's degree is conferred upon him, must represent not only a B.A. honour standing in the subject, but must go beyond this, so that if the student has taken an ordinary degree he must, having entered the graduate school, first cover the ground of an honour undergraduate course in the subject which he has selected, and then proceed to more advanced study in the same subject. If he cannot do this in one year, it would be necessary for him to devote two or more years to study before he can proceed to the degree of Master.

"(d) The course of instruction leading to the Master's degree is one which will represent formal instruction to the extent of eight lectures per week throughout the session.

"These may be replaced wholly or in part by colloquia given in connection with extended courses of reading, or by laboratory work. These colloquia or this laboratory work may be correlated with lecture work on the basis that one hour of colloquium would be equivalent to $1\frac{1}{2}$ hours of lecture, and 2 hours of laboratory work would be equivalent to one hour of lecture.

"The student must prepare a satisfactory thesis on some appropriate subject.

"A student desiring to proceed to the degree of *Doctor of Philosophy*, must follow a course of study extending over at least three years:

"(a) He must first have received the degree of Master, and if the course taken complies with the conditions set forth above,

he will be considered as having fulfilled the requirements of the first of these three years.

“(b) To ensure a certain breadth in the course of study, this course would require a major and a minor subject, the latter being cognate to the former. The subject or subjects taken in his course for the degree of Master would be those which he would continue to study in his course for the degree of Doctor of Philosophy.

“(c) The standard of attainment for the Master’s degree having, under the proposals above outlined, been fixed for all Canadian universities, the student having taken this degree could follow the second year of his course for the degree of Doctor of Philosophy in any university in Canada where he wished to continue his studies, and in which the second year of such a course is provided in the subject which he desired to study. He might even be permitted, if the arrangements of the university session make it possible, to take half year courses at different universities, or he might receive permission from the university at which he desired to present himself for his degree, to take one year of his Ph.D. course at some foreign university of recognized standing.

“(d) For the third year of his course, the student might, if he so desired, pass to a third Canadian university. In this year, the thesis would be written or completed.

“(e) The student might present himself for examination for the degree at the university in which he completed his course, or he might present himself at any of the universities between which his course of study has been divided.

“The examining university could protect itself and the value of its degree, by refusing to grant the candidate a degree if he did not fully attain the standing which this examining university required. Should the candidate fall short of this, he could be directed to resume his studies for a further specified period—a term or a year—with the right to present himself again at the expiry of this time.

“A plan such as outlined above would render the class-room and laboratory of every distinguished professor or teacher of every university in Canada open and readily accessible to any advanced student from any other university in Canada.

“The university would draw students, or fail to draw them, according to the ability and distinction of the professors filling its chairs.

“Neither would the fact that some university may offer scholarships in some subjects, while others do not, affect the situation. The scholarships might be thrown open to all students coming to the university courses in any year, or the university offering the scholarships might reserve them for men coming up from their own undergraduate faculties.

“Even such a plan might not serve to keep our best men from

drifting into the universities of the United States; but it would, at any rate, offer every inducement that Canada can offer for them to complete their studies in the Dominion."

The committee, after a careful consideration of these several proposals, reached the following conclusions:

The plan of Professor Sage, which included a central committee or board with examining powers, was felt to be unworkable, although the underlying aim that a standard as nearly as possible uniform be maintained was in general approved.

The proposals of Dean Brock supplemented the idea of a central examining board by the further suggestion that the resources of material and men at Ottawa be made available, and that the graduate training in certain subjects be given in whole or in part at Ottawa under the direction of specially qualified men in the government service. The committee felt that in the matter of co-operation with the departments at Ottawa, valuable material was available in certain departments, as in the archives for the student of History; and valuable graduate training could be obtained, as in the course of field-work under the Geological Survey for students of Geology; but in the opinion of the committee, the direction and control of the work of the student must rest definitely with the university to which the student was attached.

The plan outlined by Dean Adams was then considered. The committee decided to recommend this plan to the Conference in its general principles, the details to be worked out by some body elected for that purpose. Such details might include the minimum standard of attainment which might be considered a reasonable prerequisite in any subject before the student enter on the course for the M.A. or M.Sc. degree, and the minimum of actual tuition which might be established for the M.A. or M.Sc. degree, in cases where such degrees were to be accepted as representing one year's standing in the Ph.D. course. The committee further desired to suggest that a high standard for the Ph.D. degree could be set, and a reasonable measure of uniformity attained, by adopting the practice in each university of appointing to act with one internal examiner, two external examiners of distinction in the subject which the candidate proposed for his graduate, and particularly his thesis work.

In summary, the committee recommend as follows:

1. That in order to make fully available the resources for graduate work in Canadian universities, the requirements in the various universities be standardized to the extent that it may be possible for a student to pass from one university to another with full credit for the work already completed.

2. The co-operation with such departments at Ottawa as have graduate materials available, as for instance the archives and the geological survey branch, be established on the basis that the direc-

tion and control of the student's work for graduate purposes rest with the university to which the student is attached or with a co-operating university.

3. That the proposal to delegate powers to a central graduate board is not feasible.

4. That the university at which the student is a candidate for the Ph.D. degree appoint external examiners to act with examiners appointed from within the university, to act as an examining board for that particular candidate.

5. That a committee be appointed to consider such details as may be connected with the carrying into effect the above recommendations, and to report.

D. Report of Committee on Graduate Work in Agriculture

Principal Harrison

Since the last University Conference, there has been a decided increase of interest in graduate work in agriculture. This interest has been shown by the large numbers of addresses, at agricultural conventions, the publication of several articles in *Technical Agriculture* and other papers, and the expressed intention of those employing agricultural graduates that they desire men with advanced training for investigation, teaching and administration.

There is also a decided impression that it is time that Canadian institutions should rely on their own instructors to provide part of this advanced training, for whilst an interchange of students with other countries is beneficial, yet such a movement of our students should be one of interchange and not exportation.

All agricultural teaching faculties should encourage young men of the right type and quality of mind, and should create in them a desire for post-graduate study. This may be done by inspiring them with ideals and placing before them an outline of our outstanding and pressing agricultural problems, of which there are so many that are full of promise and interest as to tax the ability of our best trained men for many years to come.

The establishment of scholarships that will defray the expenses of men whilst pursuing their studies, and provision for absorbing these young men in junior positions, will be helpful in attracting the desirable type to research work. In this connection, the suggestion made at last year's Conference by Dean Brock, that the various departments of the Dominion government might be utilised for graduate work, might be carried out, if the Dominion department of agriculture would employ post-graduate students, duly recommended, and endorsed by college authorities, to

carry on some definite work under proper supervision during the summer months, and gave the privilege, provided proper acknowledgments were made, to use their results for their theses. Such men would then be in a superior position to the average candidate for a Master's degree, as they would complete almost a year of post-graduate work, and not the usual eight months.

The graduate work in agriculture of Canadian universities is at present in the following condition:

British Columbia

The Master's degree is offered. This requires one year of resident study, or two years of extra-mural study, or a half-year resident study and one year extra-mural study.

About two-thirds of the time is devoted to the major subject, and one-third to the minor. No specific courses are outlined in the calendar, but students are given special and particular outlines by the major adviser. Work may be taken in any department of the faculty of Agriculture, with minor in Economics, Botany, or any other Science subject.

The thesis is the most important factor on which the student is judged.

There are no foreign language requirements for the Master's degree.

All students are given written examinations on both major and minor subjects. An oral examination is also required. Department heads do their own examining.

Alberta

The Master's degree is offered. One academic year of full-time work is required, but it may be spread over two or more years of part-time work.

Advanced courses in Farm Crops, Genetics and Plant Breeding, and Plant Biochemistry are offered, and related subjects, such as Botany and Chemistry, may be taken. Courses are not divided into majors and minors.

Students are expected to devote half their time to research on a thesis subject.

A reading knowledge of French and German is advised, though not definitely required.

Written examinations are given on all course work. In addition, a final oral examination is required.

Saskatchewan

The Master's degree only is offered. This requires at least one academic year in residence, or at least two academic years in those cases in which the nature of the subjects permit the work to be done extra-murally.

Major courses are offered in Soils, Field Husbandry, Animal

Husbandry (including Poultry and Dairying), and Agricultural Engineering. Minors are offered in Biology, Chemistry, Physics, and Economics.

At the option of the departments concerned, examinations may be conducted by oral or written tests, or by means of a thesis on a subject approved in advance, or by both thesis and examination. The passing standard in examinations shall be as high as that for honors in a special undergraduate course.

Manitoba

No graduate work as yet.

Ontario

No graduate work as yet.

McGill University and Macdonald College

The following degrees are offered: M.S.A. in Agronomy and Poultry; M.Sc. in Bacteriology, Biochemistry, Botany, Chemistry, Entomology, Physics, Plant Pathology and Zoology; Ph.D. in Bacteriology, Biochemistry, Botany, Chemistry, Entomology, Plant Pathology and Physics.

Minimum full-time requirements for M.S.A. and M.Sc. are one college year or two terms; for Ph.D., three college years or six terms.

Courses are divided into majors and minors. Minors are offered in all the above departments. The minor or minor courses must not exceed 25 per cent. of the total units for the degree.

No definite division of time is arranged between thesis and course work, but it is provided that for M.Sc. and first year of Ph.D., candidates shall complete 6 units other than thesis work; for the second year of Ph.D., 4 units; and for the third year, 3 units. Of these units, 50 per cent. shall be *bona fide* graduate courses.

No foreign language requirements are laid down for M.S.A. and M.Sc. For Ph.D., a reading knowledge of French and German is required, prior to the termination of the second year.

For M.S.A. and M.Sc., written examinations are required in addition to the thesis. For Ph.D., there are written examinations in each of the courses; a final general written examination on the major subject; and a public oral examination in both major and minor work (and on the thesis if desired).

SCHOLARSHIPS, FELLOWSHIPS AND PART-TIME ASSISTANTSHIPS

British Columbia

No scholarships or fellowships. One assistant in the university department of Horticulture receives \$78 per month for 10 months, devoting half his time to department duties and half to graduate work.

Alberta

No scholarships or fellowships are available. Two graduate students are employed in the university department of Field Husbandry, one as part-time assistant in Genetics and Plant Breeding, and one as part-time assistant in Plant Biochemistry. These students each receive \$1,000 for 11 months service, and obtain M.Sc. in two years.

Saskatchewan

No scholarships, fellowships, or part-time assistantships in agriculture at the University of Saskatchewan. An annual scholarship of \$800 has been provided to enable a promising student each year to study abroad for at least two years, depending upon the progress made.

Manitoba

No assistance for graduate work is offered at present at the Manitoba Agricultural College.

The Hudson's Bay scholarship, offered annually and valued at \$1,500, is open to graduates in any branch of Science (including Agriculture) from any Canadian institution, and tenable at the University of Manitoba.

Ontario

No assistance for graduate work offered at present.

Macdonald College

W. C. Macdonald Reg'd. have established ten scholarships, valued at \$500.00 each, allocated to students in the different provinces, and tenable at Macdonald College.

The provincial government of Quebec has established three scholarships for Quebec students, tenable at Macdonald College.

The Milton Hersey scholarship of \$400.00, for graduate work in Agricultural Chemistry, is open to any Canadian student, and tenable at Macdonald College.

The Macdonald College Alumni scholarship of \$250.00, open to graduates of Macdonald College. It is expected that this sum will be increased subsequently to \$500.00.

Canadian Society of Technical Agriculturists Scholarships

The Canadian Society of Technical Agriculturists has established two scholarships of a value of \$500 or \$600 each, open to members of this society and tenable at any approved university in any country.

Research Councils

The studentships, fellowships, and bursaries administered by the Honorary Advisory Council for Scientific and Industrial Research are open to agricultural graduates, and tenable at any university in Canada.

E. Agricultural Research

J. H. Grisdale

It is not many years since research in agriculture was begun on this continent. Nevertheless, the number of men now engaged in a close study of the various problems, directly or indirectly affecting farmers in America, is quite startling. Progress has, however, seemed slow, not because there has not been much done but because each step forward has opened up a vista of problems apparently interminable, and many of them of more importance apparently than some of what were considered as the great basic problems of the industry a few years ago. It is this ever increasing array of problems, many of them of a most complex and difficult character, demanding investigation from various angles and of their various phases at one and the same time, that would seem to make increased and renewed effort in this direction absolutely imperative.

The United States federal government spends about 35 million dollars in connection with agriculture yearly and the expenditure of the federal Department of Agriculture in Canada is around 6 million dollars a year. Besides these large sums, the different states and provinces spend large amounts every year for agricultural education and for research in agriculture. In spite of all this expenditure, however, as I have already said, progress toward the solution of many pressing problems seems very slow.

The necessity for research work in agriculture was recognized in Canada some years ago, and the Dominion Experimental Farms System was established in 1886. This system has expanded tremendously in the thirty odd years of its life and bids fair to grow still further. A more recent effort along research lines in Canada, and one not confined to agricultural research, has been the Honorary Advisory Council for Scientific and Industrial Research. This body has not been very active recently, but is probably susceptible of stimulation into more effective activity.

In the United States also, there was organized some time ago, I believe, a body known as the National Research Council, dealing almost exclusively with agricultural or cognate problems. I am not sufficiently familiar with the workings of this council or the results it has to show to venture any remarks as to either its past achievements or its future prospects.

Research work in agriculture, like research work in any other line, I presume, is characterized by some quite distinctive peculiarities. Let me state a few of them without discussing them at any length:

(1) It is largely economic; that is to say, it necessarily deals with the bread and butter side of our human interests.

(2) It necessitates work with matters or along lines that have

usually been looked upon as everyday matters—that is to say, matters that concern no one but a farmer or some one of the mental training (not to say calibre) that such men have in the past been commonly supposed to possess.

(3) It is, on account of non-control of some of the factors, at least very often a long drawn out matter.

(4) It is comparatively new, hence has not quite the prestige in some of its avenues, at least, that other, long recognized, and in university circles, generally accepted legitimate lines enjoy.

(5) There are, so far as I know, no endowments to assist in the development of research men along these lines.

(6) The attitude of the farmer himself toward the work, which is, unfortunately, usually more or less antagonistic.

It would be unwise to try even to enumerate, let alone outline in any detail, within the limits of this short paper, the many and various problems needing attention. It would, however, be just as great a mistake, I believe, to omit the mention of some of the more pressing. A very great variety of such problems has been suggested to me, or occurs to me from my own experience. Let me mention a few with brief comment in odd cases.

I have arranged them alphabetically:

1. Animal Diseases, as:

Abortion, contagious.—A disease that has wrought damage to the extent of untold thousands—yes, possibly millions of dollars in our Canadian herds; that is prevalent in a very large proportion of the herds not only in Canada but in the United States and Great Britain as well, to say nothing of the rest of the world, and about which so little is known that no remedy has as yet been discovered, although some special treatment has been devised of such a character as to, in some measure, help bring the herds back to a normal condition.

Animal parasites occur very commonly in this country in sheep and swine, and while considerable work has been done in the United States, a great deal of work remains to be done with both these classes of domestic animals, and there is here a great opportunity for careful investigation.

Swamp fever.

Tuberculosis.—This disease will be discussed a little later on.

2. Bees, as:

Breeding for improvement of species.

Disease control.

3. Cereals, as:

(a) Tests of varieties for:

Hardiness.—The characteristic hardiness, or what amounts

to practically the same thing in Canada, is earliness in our cereals, but particularly in wheat is of unestimated importance. Much work has already been done along this line; much remains to be done. What has been done already has meant not millions but billions of dollars to this country. What remains to be done, no one can say since the possibilities of improvement along this line are quite unlimited, and, judging by past results, would be of untold value in helping Canada grow to the northward as she must if she is to work out her destiny according to her opportunities.

Earliness.

Disease resistance is an exceedingly important matter. Scientists are awakening more and more to the fact that upon disease resistance depends the future, not only of the human race and of the domestic animals, but also of the cultivated crops of our country. The most striking example is rust, of which more will be said a little later.

Quality.

Yield.

Type of soil for which suited.

Climatic conditions for which suited.

(b) Breeding:

To produce varieties excelling in one or more of the characteristics just mentioned.

4. Chemical, as:

Alkalinity of soils.—On the prairies, large areas are very injuriously affected by the abundance of alkalis of one kind or another which effectually preclude successful settlement on the affected lands. Considerable research has been carried on in an attempt to solve the problem of reclaiming these lands, and some progress has been made; but very much more work remains to be done, and the problem should be attacked with greater vigor since many of the affected areas are adjacent to thickly populated centres and near railroads.

Standardization of methods and nomenclature in soil analysis.

Soil reclamation.

Soil survey.—This is a work of economic importance, and, while it might possibly not be always properly characterized as research work, is work requiring very careful investigation, indeed, and work which is bound to attract considerable attention in Canada just as it is now commanding a very great deal of attention in the United States.

Fertilizers, crop and soil requirements.—Commercial fer-

tilizers have been used but little in Canada in the past. They are, however, required in certain parts and for certain crops, and much work is needed to enable the producer to economically, I believe, and profitably handle these aids to crop production.

Standardization of analytical methods of fertilizers and standardization of fertilizers generally.

5. Cultural Methods, as:

Crop rotation.—This is commonly supposed to be a farmers' problem; but, after some twenty odd years' work, I am of the opinion that very little is really known about the influence of one crop upon the succeeding one, both as to residual and after effects of the crop due to either bacterial or decaying crop remains affecting the succeeding crop. It is a problem requiring very much more work, although many years have been spent on it and many hundreds of acres occupied in carrying on the work. Soil drifting (West).

Moisture conservation (West).

Green manuring (East).

6. Entomological Subjects, as:

Bark beetle control (B.C. and Wash.).

Brown Tail moth.

Cut worms.

European Corn Borer.—This is a new problem in Canada, but one that is being attacked with great energy and one that needs very prompt and very effective action if this country is to make any progress in her live stock industry, for upon the production of seed in those parts of the Dominion where corn can be developed to maturity with any certainty, depends the success of the other parts of Canada because of the character of the seed produced in the corn districts of Canada being much better suited for production in the northerly parts of the country than seed from southern areas. Further, the sweet corn industry in Canada is one of very great economic importance, indeed, and is endangered by this borer. I am glad to say that much progress has already been made, but much remains to be done.

Grasshoppers (West).

Migratory birds.

Spruce budworm.

7. Flax, as:

(a) Breeding new varieties,
and

(b) Handling and retting:

Are both of great economic importance and it is believed

that Canada might become a great flax growing country if certain new varieties could be evolved, if the handling, that is, pulling, retting and scutching could be carried on more economically as to labour than is the case at present.

8. Fruits, as:

(a) Tests for:

Yield.

Disease susceptibility.

Quality.

Colour.

Winter hardiness.

(b) Breeding:

Improvement in these characteristics.

9. Irrigation, study of:

Duty of water.—As the irrigation idea develops, the importance of knowing all there is to know about the duty of water is increasing, and a very considerable amount of research is required in this connection.

Soil reclamation methods.

Effects on soil alkalinity.

10. Live Stock, as:

Breeding problems.

Feeding methods.

Food values.

Vitamines.

11. Meteorological Observations:

With most exact correlation of weather conditions with crop growth and farm operations, and the more efficient or economical adaptation of crops to soil and climatic conditions.

12. Plant Diseases, as:

Anthracoise in beans.

Root rots of cereals is of very considerable importance, especially in the East.

Smuts of cereals is a problem of great economic importance, but toward the solving of which very little has as yet been done.

White Pine Blister rust.—A possible menace to our lumbering industry, but of which we know very little as yet, and much work is required.

Wheat rust.—This will be discussed a little later.

Western Apple mildew (B.C., Wash.)

13. Plant Breeding, as:

Genetics.

Soil and climatic influences.

14. Plant Physiological Problems.

15. Potatoes, as:

Study of means of transmission and control of diseases of the potato. This is an eastern problem, and work is being done in N.B., P.E.I., and N.S. on Leaf Roll, Mosaic, Black Leg, Root Rot, Rhizoctonia.

16. Seeds, as:

Grain grading.

Grass and clover seed production.

Quality of seeds.

Seed testing and grading.

17. Tobacco, as:

Curing methods.

Breeding for improved varieties.

Now, there are, of course, many other problems, innumerable other problems awaiting solution—problems or difficulties which at present, because not yet solved, cause Canadian farmers—and therefore Canada—loss of many millions of dollars every year. It would be vain, however, to enumerate these problems at all fully, and the few cited will suffice to indicate the wide range of work looming ahead of the research man and the endless opportunity for effort and need for expenditure which confront the great institutions of learning and the governments of the country. It is, of course, not implied that in the lines of research just mentioned nothing has as yet been accomplished. On the contrary, a very considerable army of men, many of them distinguished in their own lines, are hard at work on these problems and, in many cases, have done not a little toward solving the more pressing or letting in some light where all was darkness before.

These men are in the service of the federal Department of Agriculture for the most part, but some of the provincial departments play no mean role, and in all, there must be approximately 500 investigators working on agricultural problems. Unfortunately, the problems are multitudinous, while the workers, though actually numerous, are comparatively few, and some of them only rather poorly equipped for the work in hand.

To give you some indication, however, of the extent of the research work under way in one branch alone of the federal Department of Agriculture, let me state that, in connection with the Dominion Experimental Farms System, there are something over five thousand projects under way, every one of which involves research in one line at least, and, in many cases, in several lines.

The amount of work in the other branches of the federal Department is not so great, but is very considerable—particularly in the Entomological Branch, where a very efficient staff is doing what it can to cope with the great destructive insect menace to agriculture and to civilization.

In the Health of Animals Branch, we have a research division

working on biological and disease problems in connection with the domestic animals. Some of the problems receiving attention are among the greatest in the world—as, for instance, the control and eradication of tuberculosis. It is being studied in connection with cattle, swine and poultry more particularly, and while it is, unfortunately, not possible to say that control seems in sight, yet I think I am not saying too much when I express the opinion that very considerable progress has been made and that the prospects of ultimate control seem fairly good.

The tuberculin test has been greatly developed and improved, but what is now lacking is some way of measuring the virulence and determining the stage of the disease in the individual under consideration. The only option so far, when an animal reacts, is to kill it. Sometimes, on post-mortem examination, no lesions can be found; at other times the animal is found to be absolutely rotten with the disease. Could some test be worked out that would indicate the extent of the infection, it would be worth many millions to this country and be of untold value to mankind generally.

This is only one line of work, success in which would be of major importance to humanity. One could mention many others of equal economic importance, if not of as great interest sentimentally.

Let me cite one other problem that is now receiving very considerable attention from agricultural research men in both Canada and the United States. I would refer to rust in wheat. This scourge has been known to man since ever wheat has been grown as a crop. History mentions it some thousands of years ago. It has done damage to the extent of millions of dollars every year in Canada alone, and some years it has done very many millions of dollars of damage, indeed, in this country. The injury in the United States is even greater every year.

We have a number of men working on this problem today. The reason we do not have more at work is that the men capable of doing this work cannot be found either in Canada or the United States. So far as I know, there are only two men in America who have done any really good work in this line. They are Dr. Stakman, of the University of Minnesota at Minneapolis, and our own Dr. Fraser, of the Experimental Farms Branch, with his laboratory at Saskatoon, Saskatchewan. Between them, they would seem to have made some real progress, and while the information they have collected and the knowledge of the disease that they have gained up to date, serves in one sense to but show what a stupendous task the control of this disease really is, it serves also to show in another sense that there are some possible lines of attack, fairly promising of results, looking to the reducing of the damage, at least if not to the elimination of the disease entirely. The strength

of the disease lies in the fact that it travels with great speed, carried by every breeze that blows on from one host plant to another, starting in the south in Mexico and Texas, in early spring, and ending up in Northern Saskatchewan in late summer, quite as vigorous, every bit as virulent and dangerous as when it set forth on its destructive career some months and several generations previously.

Its vulnerability lies in the fact that certain species of the wheat plant and even certain varieties of most species seem immune, or practically so, to its attack, and thus it may be possible to breed up an immune variety of wheat of good milling quality, yielding fair crops and maturing fairly quickly—that is, such a variety as we need for our northern prairie country. Something has been done; much remains yet to do; and the man that solves the problem and the university that trains him, or inherits him, will each and both achieve fame and confer such a blessing on mankind as will scarce ever have been equalled.

As just stated above, although research in Agriculture is of comparatively recent inception, expenditures by governments for this purpose, on this continent more particularly, are quite heavy. While this is true, those of us who have to do with the administration of funds voted by governments in aid of agriculture, find it very difficult to direct all we would like of these funds and all we consider advisable into what might be called the channels of pure research.

Governments and farmers like prompt results and, generally speaking, what is commonly called the practical, too often takes precedence over the theoretical, when funds are at all scarce—as is generally the case. Progress is being made, however, and I think I am not overly rash in stating that opportunities for research are both better than and more numerous than the men available.

Our Canadian universities, too, seem to be just awakening to the necessity for better training in biochemistry, mycology, bacteriology, physiology, etc., and all that goes with these. Much more time must be given to advanced work and many more men go into it if we are to carry on even a small part of the research work needed. I have every reason to believe, too, that as good men come forward, we shall be able to employ them at gradually improving rates of remuneration and under gradually improving conditions as to laboratories and working facilities.

Of one thing, at least, we may all be sure: there will always be dozens of problems awaiting every capable man that comes along, fitted to tackle the most simple or the most difficult.

The question of how Canada should proceed to train her specialists or highly equipped research men in agriculture is one of major importance and essential of solution at an early date.

In most cases at present, men desirous of taking post-graduate work of any consequence go to some U.S. college, several of which afford most excellent opportunities for graduate work. This has some advantages, but we should, I think, in connection with one or two at least of our Canadian agricultural colleges or universities, have provision made for high-class post-graduate work in several lines looking to the fitting of men for agricultural research.

F. University Co-operation in Scientific and Industrial Research

President MacKenzie

The committee submits as its opinion:

(1) That in the co-operation of all the possible agencies for the organization of the prosecution of scientific research for the industries of the country, the prime part which the scientific departments of our universities should take is the creation of an interest in science, both among students and the public, the stimulation of the desire on the part of students to enter the field of science, the development of the spirit of research in them, and finally the training up of a body of young men capable of prosecuting research in pure science, and, *ipso facto*, in so-called industrial research.

(2) That the nature of the research work which the student should do in this training should be such as will best suit the purpose; and, in general, this would be in pure science, rather than in any problem directly connected with industry or looking to immediate practical application. At the same time, it is felt that the carrying on of a certain amount of industrial research in a university laboratory by research workers not on the teaching staff of the university, or even in a part-time way by a member of the staff, provided such can properly be carried on in a well-equipped ordinary university laboratory, is not undesirable and can have a stimulating effect on the student and bring him into touch with the world of applied science.

G. University Preparation for Business

Dean Skelton

(The report which follows has been prepared in consultation with the members of the committee appointed by the Conference last year.)

One of the most striking phases of educational development in the past twenty years has been the endeavor of the universities to train students for business careers. Confining attention to the

English-speaking world, we see in Britain, London, Birmingham, Manchester, Leeds, Sheffield, Glasgow, Edinburgh, Aberdeen, Belfast; in the United States, Pennsylvania, Harvard, Chicago, Columbia, and the majority of the state universities; and in Canada, Dalhousie, McGill, Montreal, Queen's, Toronto, Western, Manitoba, Saskatchewan and Alberta all experimenting along varied paths in the wide field of education for business.

What are the reasons for this sudden and marked development? On the side of the universities, there has been the growing recognition that they must take all knowledge for their province and relate themselves in appropriate ways to all phases of constructive human activity. On the side of the student body, there has been the swarming of new thousands into the colleges; the growing feeling that a university training is the normal rather than the exceptional means of rounding out a life-training for those with a fair share of brains or ambition, or money, or social aspirations, and the consequent necessity of providing training for the large proportion of such men who will not enter the old professions on graduation, but will go into business. On the side of business, there has been the growing intensity of competition, individual and national; the growing accumulation of available data as to methods, processes, tendencies; the growing need for systematized and scientific analysis of this body of knowledge. The provision of university business courses has been the natural outcome of these converging forces.

Equally naturally, the movement has not escaped criticism, both from the business world and from academic circles. Many business men have been sceptical. They themselves had succeeded without university training. The qualities required for business success were personal—energy, initiative, judgment, the power of handling men; a university course could not give these qualities, and might even weaken them. University graduates would not be prepared to tackle the drudgery and routine essential for a thorough mastery of any business, and could not compete with the men who had entered business at the flexible office-boy stage. There is some force in these criticisms. Business will never be as definite or as standardized an occupation as law or medicine; business activities are of too varied a kind, the range of posts too wide for that. Certain qualities of temperament and character will always be indispensable for success in the more competitive regions of business. Yet, with all qualifications, the need and room for college training remain. The university can train men in orderly and systematic thinking; it can give them a background of fact and theory; facility in gathering and analysing relevant data; a grasp of such technical tools as accounting and statistics; and, not least, some vision of the professional ideals which should animate the business world. Just as lawyers, doc-

tors, engineers, who were formerly required to pick up their knowledge of their professions by apprenticeship and practice, now receive the greater part of their professional training in university faculties, it is clear that a steadily growing, though much smaller, proportion of business and administrative posts will be filled by men who have prepared themselves by university study.

"So far as business itself is concerned," says a well-known business man, who has recently given up business in order to devote himself to the teaching of business, "conditions today are similar to those which have brought about the development of the older professions of the ministry, the law, and medicine. The literature of business has grown beyond the capacity of the individual business man to follow. The practice of business is developing rapidly a body of principles which may be formulated and taught. There are standards and ethics of business activity outside the scope of law similar to the ethics of the older professions. The future of business at its best lies in the further development of a professional point of view. In the ministry, the law, engineering and medicine, experience has proved that the shortest and most effective way to absorb the fundamental facts, principles, and standards is in a good school. The busy practitioner of any profession has neither time, the specialized training, nor the equipment for the systematic instruction of beginners. This is particularly true of business men. The executive has little opportunity to devote to instruction, and the new employee finds himself engaged in routine work as one of a numerous force of workmen or clerks. From the nature of his surroundings and duties, he can have few opportunities to prepare himself for executive work by attempting the solution of executive problems or even by observing how such problems are disposed of. In a very real sense, rapid training for executive positions is possible to most men only under controlled conditions such as may be found in a competent school."

From academic quarters, come quite other criticisms. It is urged that business courses cannot give as broad a training for life and citizenship as the established cultural arts courses, and that, even considered as a training for business, they cannot give as disciplined and alert and effective a mental equipment as the older arts training; further, in case the business courses are given in the faculties of Arts, it is sometimes objected that technical and vocational studies are out of place in Arts. As to preparation for life, a knowledge of economic relationships may surely be considered indispensable for an educated man, but it is also es-

sential that he should have some knowledge of the world of letters and history and science, not because these studies are in any way superior, but because they are different, because they open up other vistas, present other indispensable phases of human activity and environment. As to mental training, there is no reason why, if properly balanced and properly taught, economic and commercial subjects should not afford as effective and varied discipline as any other study. The commerce graduate enjoys no legal monopoly such as falls to the doctor or the lawyer; the field is open to all—to Arts graduates, high school graduates, and men with no secondary or higher schooling whatever; in this field he must prove his worth. The question of the relationship to the Arts faculty would involve discussion of the extent to which that faculty has been, in the past, a means of vocational training for teachers, and of the distinction between study of principles and practice in technique; but time will not permit such discussion, nor is it fundamental, since it is by no means essential that the courses in commerce should permanently, at least, be included in the faculty of Arts.

In the organization of general commerce courses, two broadly distinct types are found. In Great Britain, the dominant type is the distinct faculty, with a three years' course, based on university matriculation, definitely though not narrowly professional from the beginning. In the United States, there is, as usual, more variety, but the practice is to superimpose a commerce course upon two, three or four years of training in Arts; in some cases, the commerce work is organized as a separate school or faculty—in others not so, depending upon the length of success of the experiment, the proportion of general and of specialized courses, or upon educational theory or the personal equation. In Harvard, the business course is a two year course based upon a four year Arts course; in Dartmouth, a two year course based on a three year Arts course, the degree of B.A. being given at the end of the fourth and the B.Com. at the end of the fifth year; in Columbia, and in the majority of United States universities, we find a two year business course based upon a two year Arts course.

Under Canadian conditions, and having regard to the desirability of giving the business man some glimpse of history and literature and science beyond what he has secured in the secondary school, the United States type seem preferable. While there is much variety in detail, our B.Com. courses are, on the whole, more like the American than the British in this respect.

Six Canadian universities—McGill, Montreal, Queen's, Dalhousie, Toronto, Alberta—have now established courses leading to the degree of Bachelor or Licentiate of Commerce. The course is an undergraduate course, based upon Arts matriculation. In the University of Toronto, the entrance requirement is pass mat-

riculation, with three subjects of Honour matriculation. In all the Ontario universities, it may be noted, beginning with 1923, the minimum entrance requirements for Arts consist of the former pass matriculation together with two subjects of Honour matriculation as an alternative, or a special standing on the pass matriculation, namely 75 per cent., in four, or 66 per cent. in six out of the twelve papers. In the University of Montreal, the B.A. or B.L. or a satisfactory entrance examination is required. In the English-speaking universities, except in Dalhousie, Latin is not a compulsory matriculation subject; it is optional with modern languages in most cases.

The Canadian B.Com. courses cover four years, as a rule. In McGill, which was the first university in Canada to establish such a degree, the course covered two years at first, then three, and now is to be increased to four. The University of Montreal gives a three year course, with a preparatory year. In Queen's, in addition to the B.Com. four year course, provision is made for securing the B.Com. in a fifth or graduate year, after a B.A. course in which the student has majored in Economics.

Of these four years, roughly speaking, two are given to general Arts subjects, one to pure Economics and one to applied Economics or specialized commerce subjects. The general Arts work is offered mainly in the first two years, but there is not a clean-cut division, as in Columbia; some of these courses, particularly English and modern languages are given in the third and, occasionally, in the fourth year. This general Arts work consists of English, modern Languages, Mathematics, with History, Philosophy, and Science in lesser degree; in most cases, there is a blending of required and of optional courses in these fields; where a modern language is chosen, it must be carried through two or more years. In the economic requirements, Economic Theory, Economic History, Economic Geography, Money and Banking, Statistics, Public Finance, Labor Problems, Transportation, Foreign Trade, recur as required or optional courses in most prescriptions. Then come the more specialized subjects, including Accounting, Commercial Law, Marketing, Corporation Finance, Actuarial Science, Mathematics of Investment, and Business Administration. Some work in each of these fields is usually required, with additional optional courses according to the special branch of business or administration for which the student is preparing.

In these specialized subjects, the general opinion seems to be that a grasp of principles is more important than a mastery of detailed technique. On this continent at least, the problems and methods of business and administration are rapidly changing, and the individual business man shifts still more rapidly, at least in his initial years, from one task to another until he finds his opportunity. It would be a mistake to prepare students too definitely

for one particular business career, unless in the case of a few semi-professionalized and legally delimited fields, such as accounting, since the chances are about even that in five years time the graduate will be in some quite different branch from that in which he began; at least, this is the experience of graduates of universities such as Chicago and Harvard. This consideration, as well as others, makes against many highly technical courses relating to specific types of business or branches of industry. The aim of a university course in commerce should be to train an executive with range of vision and power of analysis, not a competent clerk.

As to methods of teaching, the constant use of the problem and the case method, the assignment of special investigation tasks or theses, the requirement of work during one or more vacations, in office or plant, and supplementary addresses by business men, appear to be approved by experience.

One special and professional field for which several of the schools of commerce are providing training is accountancy. Students of McGill who specialise in this field, after completing the B.Com. course and complying with the ordinances as to practical work during vacations, spend a year after graduation in an accountant's office, and then come up for a final examination in accounting and auditing before a board consisting of three university representatives and two representatives of the professional societies of the province. Similar rules obtain in the case of the University of Montreal. In Saskatchewan, where preparation for accounting practice is the main feature of the commerce work of the university, the university conducts all examinations for admission to the institute. Students in the accounting course provided by the university are required to spend one year in the office of a practising chartered accountant before coming up for the final B.Acc. examination. Graduates of the accounting course, desiring to be admitted to the Institute of Chartered Accountants, must serve an additional year in the office of a practising chartered accountant, and are then eligible for admission without further examination. In Ontario, where the Institute of Chartered Accountants is long established, antedating any university interest in the question, the examinations for admission are still conducted by the institute, but partial exemption is granted to students who complete a satisfactory university B.Com. course specialising in this subject.

Thus far, consideration has been given only to the regular courses leading to a university degree. In addition, much extension work has been done. This takes several forms. The University of Montreal, which provides evening as well as day courses for its degree students in commerce, also offers evening courses open to anyone engaged in business, in the main of a more elementary character, and leading to a special certificate on satis-

factory completion. The University of Manitoba also provides evening business classes which have been well attended, covering Accounting and Auditing, Commercial Law, Correspondence, Arithmetic, Economics, and, in previous years, Business Administration and the Mathematics of Investment. A second type of extension activity consists of specialized short lecture courses for men already engaged in certain branches of business. The University of Manitoba has provided in Winnipeg, for six years, and in Brandon for two years, a short lecture course for retail merchants, and for the past five years a course in life insurance. The University of Alberta has also carried on extension work in the latter field. The University of Toronto, the University of Montreal, and McGill University, the latter with some co-operation from Queen's, provided this past winter, in conjunction with the Department of Trade and Commerce, short courses in Export Trade. McGill a year ago provided a series of lectures for a group of advanced banking students, and the University of Toronto and Queen's University have provided similar courses of less comprehensive scope. A third type of extension work consists of the correspondence courses in Banking and Accounting offered by Queen's University. These courses are restricted to students employed in banks or in accounting firms, respectively, who therefore can obtain in their daily work the technical knowledge and background required; the courses provided by the university, particularly in case of the banking work, deal with broader phases of the occupation which would ordinarily not be available for the man in harness. In Accounting, the university has made an agreement with the Institute of Chartered Accountants of Ontario by which all candidates for the certificate of this body must take the courses. The banking course is wholly voluntary, though the majority of the banks encourage men to undertake it by exhortation and cash bonuses; on behalf of the Canadian Bankers' Association, the university conducts examinations and awards diplomas to successful students, as Associates or Fellows of the association.

We may next consider the universities individually. Dalhousie established a Department of Commerce in 1920; it has concentrated hitherto upon a Bachelor of Commerce course, covering four years. McGill instituted in 1917 a Bachelor of Commerce course, which corresponded more closely to the British type than any other in Canada; the addition of a fourth year will modify in some measure this distinctly professional trend. The commerce work of the University of Montreal originated in the founding of L'Ecole des Hautes Etudes Commerciales by the government of Quebec, on the model of continental schools; it began work in 1910, in 1915 was affiliated with Laval University, and is now the faculty of Commerce of the University of Montreal. One feature of its work is the establishment of a commercial and in-

dustrial museum, designed not merely to assist in teaching but to serve the public and manufacturers and distributors. In Queen's, the B.Com. course was begun in 1919, the extension work in banking in 1914, and the extension work in accounting in 1921. In the University of Toronto, a four year course in commerce and finance, leading to the degree of B.A. on an honour basis, with the usual requirements as to Honour matriculation, has been in force for a good many years. It stood half-way between the ordinary Honours course in Political and Economic Science and the more highly specialised B.Com. course which was established in 1920, but which still is not greatly specialized. Under a recent re-arrangement, this commerce and finance course is to disappear, as it duplicated to an excessive extent the subjects included either in the Political Science Honours course or in the commerce course. Henceforth there will be only the commerce course, leading to the degree of B.Com., and the Political Science course. But the latter will bifurcate after the second year, so that students may specialize for their last two years either in (a) Economic Science, or in (b) Politics and Law. The chief difference between the Political Science (a) course and the commerce course will be (apart from the fact that the former requires a somewhat different matriculation standard, not necessarily higher, but including Latin) that the commerce course contains more Actuarial Science, Accounting, and a special course in Business Administration. In Western University, commerce work is given under one of the optional courses leading to the B.A. The University of Manitoba has hitherto confined its activities to the evening and extension courses noted, but the university council and an advisory council of business men have recommended the establishment of a B.Com. course. The University of Saskatchewan has concentrated upon the course for accountants, leading to the degree of B.Acc. The University of Alberta has adopted a B.Com. course of the general type, including optional courses in Industrial Chemistry and similar fields.

Except in the University of Montreal, which took over a school which had been established independently, the commerce courses are not organized as a distinct faculty but are incorporated in the faculty of Arts. In McGill, the courses are organized as a distinct school within the Arts faculty, with a director-secretary and a special committee; there is a possibility that a distinct faculty of commerce will shortly be established. In Queen's, a director of commerce courses has been appointed, but otherwise no distinct organization given. This question of organization will, doubtless, become pressing with the growth in numbers of students and of staff. On the side of distinct organization, it may be argued that this makes for definite responsibility and efficiency in administration; on the other hand, the close connec-

tion with the Arts may be of use in restraining the tendency to over-specialization. It is a question, in part, of the size and apparent permanency of the commerce classes in a given institution; and, in part, of the degree of differentiation that is desired. The fees charged in the B.Com. courses, it may be noted, are the same as in the general Arts courses, except in McGill, where the sessional fee for commerce students is \$150, against \$100 for the general Arts student, and in Toronto where a slightly larger fee is levied than for the general Arts student—\$80 as against \$65 or \$50.

A few very general conclusions suggest themselves:

University training for business is a normal and perhaps inevitable development in Canada as well as in other countries. It is not necessary that all the universities should organize work to the same extent or cultivate precisely the same field: the needs of the community, the qualifications and interests of the staff and existing courses elsewhere will naturally influence their activities. It is desirable that the course should contain a large element of general Arts training; in some cases, the course should be of a graduate character, but in any case there should be the equivalent of at least two years of general Arts work, not necessarily given wholly in the first two years of a B.Com. course. It is essential that the standards should be fully as rigid as in the general Arts work: the commerce graduate will face a rigorous test on graduating; he will enter no sheltered profession. In the special commerce work, it is, as a rule, desirable to avoid on the one hand, too highly specialized or technical courses, preparatory for certain businesses or posts; and, on the other hand, merely re-grouping a number of general Economics courses and giving a B.Com. instead of a B.A. degree for their completion. The question of organization as part of the Arts faculty or as a separate school or faculty is one that varies with local conditions and the stage of development.

A school of commerce should not content itself merely with instruction, but should aim also to carry on a certain measure of investigation or research, and of publication. In instruction, the problem or case method should be utilized largely. The aim of instruction is not merely to give the student a certain store of knowledge or teach him where to look for further facts, but to give him a firmer grasp of principles, a keener power of analysis and of synthesis, and a wider human sympathy. Perhaps not least of the goals that university schools of commerce should set before them, is the endeavour to give to the business world, so far as their influence may reach, something of professional ethics and of the humanist ideals of the true university. If this is done, then the youngest of the faculties will not be unworthy a place beside its fellows.

H. Report of Dental Committee

Dr. Seccombe

For many years, Canadian dental teachers have enjoyed association with their American confreres through membership in the American Institute of Dental Teachers. The Canadian faculties have also established close co-operation with other American dental organizations, notably the American Faculties Association and the Universities Dental Faculties Association.

Three years ago, the Canadian dental faculties organized an association for the purpose of providing an opportunity for the discussion of purely Canadian problems. These Canadian conferences have been held informally each year at the time of the meeting of the American Institute of Dental Teachers.

Last year it was decided to amalgamate all of these organizations into one association, to be known as the Association of American Dental Schools. The time would seem opportune, therefore, to formally include in this Canadian Universities Conference, representatives from the Canadian dental faculties, and the suggestion is offered that the constitution be amended accordingly.

There is a definite need in Canada for regional and national conferences on dental educational problems, questions of entrance standards, transfer of students, and general administrative problems, as well as questions affecting more particularly the academic side.

The Carnegie Foundation for the Advancement of Teaching has made a complete survey of dental education in the United States and Canada, and the report covering this survey will be published during January, 1924.

There is some difference of opinion at the present time regarding entrance requirements, but your committee feels that a definite decision upon this matter might better be left in abeyance until after the publication of the Carnegie report.

I. Report of Committee Appointed to Consider Request of Royal Military College

Sir A. W. Currie

The committee met at Queen's University on Thursday, June 14th. There were present: Sir Robert Falconer, of Toronto University; Principal Bruce Taylor, Queen's; Dean Fox, Western; Dr. Nolin, Montreal; Professor Dawson, Royal Military College; Brigadier-General Andrew Macnaughton, C.M.G., D.S.O., General Staff Militia Headquarters, Ottawa; and Sir Arthur Currie, Chairman.

The Royal Military College authorities ask the universities of Canada to consider the possibility of granting to cadet grad-

uates, three years standing in the following departments of Applied Science: Civil Engineering and Mechanical Engineering. Mention was made of granting the same credit in the departments of Electrical Engineering and Chemical Engineering, but this was not pressed.

The Royal Military College make their request because of the following changes in their curriculum:

(1) The course has been extended from three years to four years.

(2) The military curriculum has been revised, increasing the proportionate number of hours given to civil subjects.

(3) Greatly increased laboratory facilities are now available at Royal Military College. These are in chemical laboratory, machine shop, assay room, and draughting rooms particularly.

(4) The lengthened course and the revised curriculum permit of a greater degree of specialization, particularly in the fourth year.

Generally speaking, the universities grant to the graduate cadet, two years standing in any branch of Applied Science, though some universities are considering the revision of this somewhat arbitrary agreement.

The committee takes into consideration the fact that cadets may enter at sixteen years of age and that the entrance requirement is only pass matriculation—a standard which it approves for the Royal Military College. It recognizes the necessity and importance of the service which the college is rendering, and believes that every encouragement should be extended to it by the universities. The committee knows that many of the cadets look forward to a university course on graduation and believes they should receive all possible consideration for the work done at the college and be placed to the best advantage in the university undergraduate body; yet it feels that the standard and value of the university degree must be maintained. It makes bold to suggest to the college authorities the wisdom of adhering closely to those subjects distinctly allied to military science.

The conclusions of the committee are that cadet graduates and undergraduates who have completed more than two years of the regular four year course, can only be admitted to university courses on conditions to be determined from time to time, and depending upon the standing presented and upon the department the applicant wished to enter. Graduates with exceptionally good standing might be admitted to the fourth year in Civil Engineering or to the third year in the other branches of Engineering.

The principle which will underlie the credit granted to the cadet will be that he will receive all possible credit for the work done at the college.

The committee recommends that the Conference approve of this principle and that it appoints a committee of three—one each

from Toronto, Queen's and McGill—whose duty it shall be to visit the Royal Military College and consult with the Royal Military College authorities with a view to determining what credit can be granted the cadet graduate, and for the purpose of advising with the Royal Military College as to measures to be taken, if necessary, in order to secure greater credit than at present.

The committee further recommends that the present Royal Military College committee be continued.

J. Report of the Committee on Oriental Students

Sir A. W. Currie

The committee on Oriental Students begs to make the following report to this Conference:

The committee has received authentic information that the British government has committed itself to the principle of devoting the remaining payments of the Boxer indemnity to the education of Chinese students in British universities, although as yet the details of the plan have not been worked out.

This committee holds the opinion, which it has already represented to the British government, that it is eminently desirable that some of these Chinese students receive their advanced education in Canadian universities. Accordingly the committee recommends:

(1) That the Universities Conference request the government of Canada to endeavour to persuade the British government to permit a certain number of the Chinese students to be diverted to the universities of Canada.

(2) That the Universities Conference request the government of Canada to permit a committee of the Conference to co-operate with the government in its efforts to bring a quota of these Chinese students to Canada.

The committee further recommends that the universities of Canada, through their Conference, pledge themselves to do all in their power to assist the government in securing the kind of evidence required for the admission of bona-fide Chinese students into Canada without the payment of a head-tax.

In view of the great importance of this matter, the committee suggests to the Conference the advisability of again appointing a committee on Oriental Students.

For the information of the members of the Conference, there is herewith appended the text of two telegrams concerning the entry of Chinese students into Canada, which the committee has received from the Right Honourable W. L. Mackenzie King:

“Replying your wire this date. Students coming to Canada for the purpose of securing higher education in any Canadian college or university are now and have been

exempted from head-tax since July 25th, 1917. They will continue to be so exempted."

"Replying to your telegram just received, concerning establishment of bona-fides of Chinese students. Under present regulations, Chinese students arriving at Canadian ports of entry are required to produce certificates showing their educational status in China for the purpose of establishing whether they are qualified for entering a Canadian university and that they have completed arrangements for admission to a Canadian university; and further, that they are financially able to pursue the studies contemplated. Under the new act now before the senate, it is proposed stationing an immigration officer in China, who will pre-investigate the claimed status of students coming to Canada. A passport will be given the student before he leaves China, which will entitle him to enter Canada without further examinations."

K. Report of the Committee on Athletics

Dean DeLury

In the absence of all but one member of the committee appointed at last year's Conference, a new committee was formed, composed of the following members: Dean DeLury, Dr. Nolin, Dean Boyle, and Professors Neville, Buchanan, Wheelock, Sirois, G. E. Wilson, and Jolliffe.

The committee met and organized, Dean DeLury being appointed chairman and R. O. Jolliffe secretary.

Your committee went carefully over all the correspondence submitted. This consisted, in the main, of a draft report sent out by Dr. A. S. Lamb to the other members of last year's committee, together with some criticisms and suggestions touching this draft report from other members of the Committee.

It was decided to present Dr. Lamb's report as originally submitted and to add our own modification of it as suggested by the criticisms and recommendations of the former members of the committee and by the very full discussion to which it was submitted in our own meeting.

Dr. Lamb's Draft Report

Your committee is pleased to submit the following report for your consideration.

Your committee discussed the desirability of submitting uniform regulations for the control of athletics, and felt that as the athletic situation differs so much in the various provinces, it was not possible to submit such regulations, but it desires to submit certain principles for your consideration, in the hope that they may be adopted by this Conference. Your committee therefore

recommends that the following suggestions be transmitted to the boards of reference of the W.C.I.A.U., the C.I.A.U., and the faculty bodies which act in a similar capacity in other institutions:

1. That recognition be given to the fact that the term, "Physical Education," includes all athletic, gymnastic and aquatic activities.
2. That every effort be made:
 - (a) To promote the true spirit of amateurism;
 - (b) To stimulate interest and participation in the various forms of physical exercise;
 - (c) To uphold a fearless administration of the spirit of the rules and the maintenance of the highest standards of sportsmanship.
3. That there are very definite educational advantages to be secured from properly supervised physical activities.
4. That a definite academic standing should be held by the student before he is permitted to compete on representative athletic teams. (Method adopted by the C.I.A.U. suggested; copy attached.)
5. That the athletic policy be a university policy and therefore control of athletics be in the hands of the faculty.
6.
 - (a) No man who has ever received any pecuniary reward or its equivalent, by reason of his connection with athletics, whether for playing, coaching or acting as teacher in any branch of sport, or engaging therein in any capacity, shall represent his university in any athletic team, except that the board of reference may permit such participation in intercollegiate athletics by men who might technically be debarred under the letter of the rule, but who, in the judgment of the board, have not commercialized their athletic ability or offended against the spirit of the foregoing provision.
 - (b) No student shall represent his university in any athletic team who receives, from others than those on whom he is naturally dependent for financial support, money by gift or loan, or the equivalent of money, such as board and lodging, etc., unless the source and character of these gifts or payments to him shall be approved by the board on the ground that they have not accrued to him primarily because of his ability as an athlete. (Amateur definition of C.A.A.U. will govern.)
7. That consideration be given to the advisability of not permitting first year students to represent the university on its representative teams.
8. That disapproval be expressed of all propaganda, either through special inducements or through disparagement of other in-

stitutions, to induce boys in the schools to go to a particular institution.

9. That it is desirable to have properly qualified teachers and coaches of athletic activities, and that they be members of the staff of the university. That no coach shall receive for his services any money or other valuable consideration, except through the university authorities.
10. That the training of teams shall not begin at the university prior to ten days before the opening of the university.
11. That no post-season contests for the purpose of settling provincial or Dominion championships be conducted where there is interference with the academic responsibilities of the student.
12. That it is undesirable to devote an excessive amount of time in the training of athletic teams.
13. That training-quarters are not desirable for college teams. (Training table, limited to one meal per day, is possibly justifiable.)
14. That in the playing of games, an effort be made, so far as possible, to arrange contests only with teams representing institutions employing similar standards of eligibility and similar training methods.
15. That the matter of publicity shall be subject to constant supervision and study in an effort to lessen undue emphasis upon athletics.

Respectfully submitted,

A. S. LAMB.

Note.—This report includes certain extracts from the Yale-Princeton-Harvard athletic agreement.

This year's committee recommends that this draft report be amended as follows:

1. That there are very definite educational advantages to be derived from properly supervised physical activities.
2. That every effort be made:
 - (a) To promote the spirit of true sportsmanship;
 - (b) To stimulate interest and participation in the various forms of physical exercise;
 - (c) To uphold a fearless administration of the spirit of the rules, and the maintenance of the highest standards of amateur sport.
3. That a definite academic standing should be held by a student before he is permitted to compete on representative athletic teams. Failing more precise definition, we suggest that a student must have qualified to go on in his course; and we submit the form required by the C.I.A.U. as covering the reasonable requirements.

4. That the athletic policy be a university policy, and that the ultimate control of athletics be in the hands of the faculty, said control to be exercised chiefly in the way of co-operation, advice and suggestion.
 5. That the definition of an amateur given by the A.A.U.C. be accepted for the time being as a qualification for participation in any intercollegiate contests; and that, during the year, the institutions holding membership in this Conference be asked to forward to the chairman of this committee any statement or suggestion that they have to offer in this connection.
 6. That, in view of the widely differing conditions that prevail in our institutions, particularly in regard to the number of students enrolled, the decision to allow or forbid first-year students to represent their university in intercollegiate sports be left to local regulation.
 7. That the committee on Athletics for the ensuing year be composed of the following: Professor R. O. Jolliffe, chairman; Dr. A. S. Lamb, secretary; Professor M. A. Mackenzie, Dean Boyle, Professor G. E. Wilson, Professor Howe, and Dr. Jacques Landier.
- All of which is respectfully submitted.

CANADIAN INTERCOLLEGIATE ATHLETIC UNION

CERTIFICATE OF ELIGIBILITY

.....SERIES
(Rugby, Hockey, Track, etc.)

Place..... Date.....

Declaration of Student

I declare:

(a) That I am an amateur as defined in Art. 12 of the Constitution of the C.I.A.U.

(b) That I was a bona fide student in actual attendance on regular courses in the Faculty or School of.....in.....University during the session 19.. to 19.. and that I have secured such standing at the end of that session as makes me eligible to compete in any Intercollegiate contest according to Article 14(a) of the Constitution of the C.I.A.U. as printed on the back of this form.

Signature of Student.....

Date.....192..

Declaration of Dean or Registrar of Faculty

I hereby certify that.....is a bona fide student in actual attendance on regular courses of the.....Year in the Faculty or School of.....in.....University for the....Session 19.. to 19..

Also (a) or (b)—(cancel one or other)

(a) That he was in attendance in this Faculty during the Session 19.. to 19.. and that he secured such standing as permits his advancement to

the next higher year during the current session in accordance with Art. 14(a) of the Constitution of the C.I.A.U. as printed on the back of this form.

(b) That he has satisfied the Matriculation requirements for entrance to this Faculty

or
has presented certificates from the Faculty of.....
of.....University which enable him to enter in "good standing" as defined in Art. 14(a) of the Constitution of the C.I.A.U. as printed on the back of this form.

Signature.....

Dean or Registrar of Faculty

Date.....192..

[Declaration of Professor

I hereby certify that.....duly certified above is known personally to me as being in attendance on regular lectures in the Faculty of.....in.....University during the current session.

Signature.....

Date.....192.. Professor of.....

(N.B.—Following the declaration of the student, this certificate must be signed first by the Dean or Registrar of the Faculty in which the student is registered and second by a Professor (not demonstrator or lecturer) to whom the student is known personally.)

(Note.—This form properly filled out and signed in accordance with the conditions of eligibility, for which see note on the back hereof, should be sent by registered mail to the Secretary of the C.I.A.U. at least four days before the opening match or game of the series to which it relates.)

NOTE.—The conditions in regard to eligibility are as follows:—

- XIV. (a) No person shall be eligible to compete in any Intercollegiate contest, either individually or as a member of a team, who is not an amateur, and who is not also a bona fide registered student regularly in attendance on the regular lectures of the University or School he represents; and further, no one shall be eligible to compete who failed to write on the final Sessional examinations of the preceding year of attendance, or **who failed to secure such standing as would permit him to enter the current year in good standing.** (The term good standing shall be interpreted to mean that a student is qualified to proceed with his regular course of study, without such failures as necessitate the repetition of work essential to the completion of his course within the time prescribed for it, thus delaying graduation. Should any student claim to have been unable for good reason to write on the sessional examinations, the question of his eligibility shall be decided by the Board of Reference.)
- (b) At least four days before any contest in any series or meeting between University teams, the Secretaries of the Athletic Associations concerned shall send by registered mail to the Secretary of this Union certificates of eligibility in accordance with the foregoing signed by a Professor whose classes the student is attending, and countersigned by the Academic Head of the Faculty or University or School of which the student is a member. Separate eligibility certificates, in accordance with the above, must be submitted for each branch of athletics.
- (c) The names of all students thus certified shall be entered in a register, and a list of these shall be sent as soon as possible to the Athletic Association concerned.
- (d) Any student not so certified, but otherwise eligible, may take part in any contest, provided his certificate of eligibility is sent

by registered mail to the Secretary of the Union not more than one week after such contest, **and accompanied by Five Dollars for each such student**, as a fee for late registration. Should such certificate and fee not be sent by registered mail one week after the contest, or should such certificate prove invalid, or should any student whose certificate is not valid take part in any Intercollegiate contest, such contest shall be awarded to the unoffending team. Should any such student take part in a contest in which individual points are scored, the points made by him shall not be counted. Should such contest be in a "home and home" series, the points scored by the offending team shall not count. Should both teams play ineligible men in any contest, then such contest shall not count in the series.

- (e) Should the academic standing of any competitor be called in question as not complying with the foregoing conditions, then such objection shall be communicated to the Member of the Board of Reference representing the University of which the student is a member, and should such Governor decide that in his opinion the student is eligible to compete the certificate shall be valid, but not otherwise.
- (f) Should a student whose standing is called in question belong to a College or University or School having Associate Membership, then the eligibility of such student shall be decided by the Board of Reference, after consultation with the academic head of the institution to which the student belongs.

L. Report of Committee on Engineering Education

Dean Clark

In the absence of Dean Mitchell, chairman of the committee, Dean Clark acted as chairman. There were present, besides the chairman, President Sexton of Halifax Technical College, and Professor Bain, of Toronto University. Dean Mitchell had, during the winter, received from various members of the committee, suggestions as to topics to be taken up by the committee. As the originators of several of these topics were not present, the committee devoted its time to the consideration of a few of them only.

(1) Dean Mitchell had raised the question, "What is the best length of session for Engineering schools?" The committee found that the session in the schools of Ontario is practically the same, from about the first of October to the first of May. In the schools of the west, the session is about two weeks longer, while at Halifax it is nearly a month longer. So that considerable diversity exists. There was unanimity of feeling that a longer session than exists in most of the schools is highly desirable, if it were practicable. The fact that so many of our students are self-supporting; that summer employment is such an important part of the student's preparation for his life-work; and the fact that many employers need the student-help on the outside work beginning about May,

presents a practical argument against lengthening the session that is nearly unassailable.

(2) The committee then discussed the subject of best number of lecture and laboratory hours per week in an engineering course. This question was raised by Professor Turner. The committee agreed that while it is not possible to lay down a fixed maximum for all courses, it was desirable that the number of lecture and laboratory hours should not exceed thirty per week. These should be divided approximately equally between lecture and laboratory. If the number of hours attendance is too great, the student finds himself wearied by his day's work, so that he is unable to do the amount of independent thinking and work that he should.

(3) Is it possible to give the students of especial ability more work along the lines of special interest than is given in the ordinary courses? This question was raised by the acting chairman, and was suggested by an experiment now being carried out at Queen's. Believing that there is too much uniformity in our educational system, all the way from the primary schools to the university, and that all students in the engineering faculties are trained according to the same standard set too often by the inferior student, the faculty at Queen's has endeavoured in the past few years to try to give the man of marked ability more attention in the hope that he might, instead of acquiring habits of idleness, gain a still higher position even than the daily work will allow. At Queen's, they have endeavoured to do this first by offering the exceptional student an opportunity to do more work than the ordinary student, to do different work, and to have outside reading along the lines of the regular work but taking him further. Discussion brought out the fact that something is being done at Toronto, Halifax, and elsewhere, though perhaps the scheme has been developed further at Queen's. The committee felt that the training for leadership is so important that the plan should be discussed further, and the acting chairman was asked by the committee to send to each member a letter explaining what is being done at Queen's, in order that the committee might discuss this topic again at the next conference.

(4) Professor Copp of Dalhousie raised the question, "Is it desirable to require two years of work in an Arts faculty as a prerequisite to an Engineering course?" The ideas suggested are that a man, by such preliminary training, would be a broader-minded and more useful member of society, and also be a better engineer. It is felt in many quarters that the engineer is not sufficiently trained in the finer things of intellectual life, and has not the acquaintance with history, literature, and philosophy that an educated man should have.

The committee feels that it is highly desirable that additional cultural subjects, like English, Philosophy, Modern Languages,

and Economics, should be added to an Engineering course, even if this means the lengthening of the course by one year; and recommends that the question of such addition to the curriculum be referred to the different universities for discussion. The committee was not disposed to recommend any prerequisite such as suggested by the original question.

M. Report of Committee on Medical Education

Dean Prowse

Universities represented: Alberta, Dalhousie, Manitoba, McGill, Queen's, Toronto, Western Ontario. Four sessions held—one at Montreal, three at Kingston.

Resolutions

- (1) That the members of this committee be given the status of members of the Conference. (*Adopted by the Conference.*)
- (2) That in the opinion of this committee, it is desirable:
 - (a) That the period of study required of students in Medicine should be limited to six years after entrance. (*Adopted by the Conference.*)
 - (b) That as soon as practicable, medical students shall be under the control of the Medical faculty during the whole six year period. (*Referred by the Conference to the various universities.*)
 - (c) That the teaching in the subjects Chemistry, Physics, and Biology be carried on by the Arts faculty under the control of the Medical faculty, and that such Arts teachers be included in the Medical faculty. (*Referred by the Conference to the various universities.*)
 - (d) That the final year be a clinical year, devoted almost entirely to hospital work, with the students acting as junior assistants to the hospital internes; and that there be included in this year certain instruction by clinics and lectures; and that as early as feasible, this year be a calendar year instead of an academic year. (*Referred by the Conference to the various universities.*)
- (3) That in the opinion of this committee, and because of the impossibility of providing adequate clinical instruction to students who purpose to engage in medical practice in tropical countries, it is inadvisable to encourage such students to proceed to the years in which clinical instruction is given in Canadian universities (*referred by the Conference to the various universities*); and the committee therefore recommends that a special committee be appointed to ascertain what can be done to establish a satisfactory clinical school in the British West Indies, and the ways in which Canadian universities might contribute towards the establishment

and conduct of such a school. (*Part 2 adopted by the Conference.*)

(4) That this committee meet next year with the Conference; but if the Conference does not meet, then at the call of the chairman of this committee. (*Adopted by the Conference.*)

(5) That the paper of Dr. James Miller, on "Colleague Examining," (*Appendix N*), be recommended for publication in the proceedings of the Conference. (*Adopted by the Conference.*)

(6) This committee is of the opinion that the principle of colleague examiners, selected from other universities, should be followed so far as local conditions permit. (*Adopted by the Conference.*)

N. Colleague Examining

Dr. Miller

It may be that the time is not very far distant when some better way will be found of testing the qualifications of a candidate to practice medicine than by the ordeal which we call the written or oral examination. The tendency is to judge a man by his records throughout the session or year, and not by his capacity to answer, on a particular day, certain selected questions in the course of an hour or two. But until that better way is found, the old system which candidate and examiner alike abhor must persist. Open to criticism as it is acknowledged to be, it behooves us to study from time to time, how it may best be carried out under existing circumstances. We need not discuss here the question of whether a written, an oral, or a practical test is preferable. Probably a combination of all three is advisable. It is the personnel of the examining board which is now under discussion.

It is in no spirit of boastfulness, but merely to emphasize my qualifications to speak on this subject that I enumerate the examining boards to which I have been attached. They are as follows: The triple board of the Royal Colleges, Edinburgh and Glasgow; The Royal College of Veterinary Surgeons, England; the Universities of Aberdeen, St. Andrew's, and Birmingham; and, in Canada, Queen's University and the Canada Medical Council. In all, except one, of these examining boards—namely, Queen's University—at least two examiners inspected the papers and were present at the oral examinations. Sometimes the same two men read the papers and conducted the oral tests. Sometimes, as in the case of the Canada Council, four examiners were concerned—two for the written and two for the oral.

It may, I think, be taken as axiomatic that it is better that the teacher of the students should himself be one of the examiners. Certain boards do not take this view, regarding the teacher as an interested individual who will endeavour to pass as many candidates as possible. But, fortunately, this view is not widely prev-

alent. The chief reason why it is better that the teacher should have a voice in the final decision as to the qualifications of a candidate is that if he is worth his salt, he will know the previous record of the candidates, and he may be able to step in and say that so and so is not doing himself or herself justice. One of the arguments against examination in general is that the test is carried out on a particular occasion when the candidate may not be physically fit and when many candidates (the nervous type) will certainly not do themselves full justice. It is here that the teacher who knows the student, his character, abilities and previous record comes in to re-establish the balance.

Of course, logic here forces us to query, "If the teacher knows the students' records, may he not, without further ado, pass or plough, and so do away with the examination test altogether?" But, in the first place, the ideal teacher who can thus size up his pupils is by no means often found; and, secondly, some consideration must be given for candidates who work best under pressure of the examination ordeal.

But while it may be taken as generally admitted that the teacher should be *one of the examiners*, it is at least open to question whether he should be the only one. Human nature is a curious thing; and however conscientious one may be in examining, however careful one may be to eliminate the personal factor, it is almost impossible to shake oneself free from prejudices in examining students. A student has, perhaps, been impertinent, or merely endowed with overflowing animal spirits that have led him to perpetrate some act which has interfered with the discipline of the class. He comes up for examination; is, perhaps, a little on the defensive and on the outlook for trouble. How easy, if he is on the border line, to refer him to a later occasion. A case like this is met by the system of colleague examining. If the teacher feels that he ought not to correct a certain paper or ought not orally to examine a certain man, it is an easy matter to leave the paper or the candidate to a colleague, if he possesses one. If, on the other hand, he is alone, he may be faced with a very difficult problem.

Again, the inclination may be in the other direction. All teachers have their favourites. Sometimes the favourite is not the man or woman with the best brains. Some wily students endeavour, for this very reason, to cultivate the soft side of their professors. It is easy for a tactful student to get into the good graces of his teacher. There is no harm in this if the method is to know his work. But one wonders how often in awarding honours personal predilection bears a part. In my own experience, quite frequently. When it is merely a matter of pass or plough, erring on the side of leniency is not the same grave offence as is the opposite. Here, again, the colleague examiner is a correcting

force. Presumably, except in the cases of the fair sex, the charm is one which takes some time to act, and the extern examiner will gently indicate that in his opinion the marks should be so much lower.

Here the objector may suggest that this possible difference of opinion between two examiners is a strong argument against their duplication. In my experience, occasion for disagreement seldom arises. The practice usually is to strike a mean between the marks awarded by the two examiners. It is quite astonishing how close is the similarity between the standards of men who really know their subject. The man who fails to size up a candidate properly is usually a man who is not himself a teacher.

Another argument for colleague examining is that a duty shared is a duty lightened. This is not merely that the two examiners may correct each their own half of the answers to the written questions, but in oral examining, it is a very great relief for one examiner to mark while the other asks the questions. In this way, a breathing space is secured, brains last longer in a fresh condition, and temper stands the strain.

It may be reasonably argued, where a university department consists of several teachers each of whom takes his or her part in the examining, that this more than meets requirements in relieving pressure and avoiding the one examiner test. I am not at all sure that it does. One of the chief advantages of colleague examining, where one at least of the examiners comes from another university, is that new and different emphasis is given to the various branches of the subject. A teacher—especially if he is a man of pronounced views and well on in life—is too apt to lay special emphasis always upon certain things. The whole department tends to take on this special colouring. The student, quick to save himself time and trouble, learns only the professor's views, knowing that he will be examined along these lines. If, on the other hand, a teacher from a totally different school is introduced, the student finds it necessary to broaden his reading. The junior teaching staff sees evidence of this, because when a new extern examiner is appointed, the candidates, always on the outlook for saving time and trouble, at once make enquiries as to the special fads and fables of the new man. This may be taken as "giving the show away," only a few more facts having to be added to the stock-in-trade of the examinee; but in the end it certainly results in the man getting a broader view of his subject.

However, the main arguments, to my mind, for the adoption of the colleague examiner, are to be found not in the increased efficiency and fairness of the examining, but in the indirect results which it has on the university itself and on university politics. When the extern examiner, commonly the head of a department in another school, comes up to fulfil his duties, as a rule he stays

as guest with his co-examiner; in any case, the two spend a number of hours, possibly days, together. In the case of the scientific subjects, they go over the laboratories and museums, selecting material for the practical examinations, and they chat over methods of teaching, preparation of specimens, etc., etc. I may frankly say that I have never gone away from a department in which I have been examiner, without taking with me some piece of useful information which has been of value in my teaching or other work.

But colleague examining has a wider importance—it cements the friendship of the various universities. Not only are the corresponding departments linked by friendship and co-operation, but, owing to opportunities of meeting men working in other lines, the staffs of the universities come to know each other well. Thus the way is prepared for a common policy when great matters have to be decided upon.

Colleague examining has been in existence for many decades in the Old Country. It is there that the author's experience has been obtained. To a certain extent, it exists in Canada, *e.g.*, in the case of the dominion and provincial medical examining boards. But as far as Canadian universities are concerned, it is non-existent, and there is no valid reason why this should be so. To be sure, the distance between the various educational centres is considerable; but it is not too great: and the author, in the short time he has been in Canada, has realized that the universities of the Dominion need all the cementing they can get. Much more might be done for higher education, if there was more co-operation and collaboration. Colleague examining would go a long way to secure this.

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